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SECTION M - CULTIVATED PLANTS

Book No. 2, 1959

Abstracts 6199 thru 6501

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SELECTED TRANSLATIONS OF  
ABSTRACTS IN REFERATIVNYY ZHURNAL - BIOLOGIYA, No. 2, 1959

This report consists of complete translations of the Russian-language abstracts of articles, which were originally published in the Sino-Soviet bloc and in Yugoslavia.

The Soviet subject classification system used in the original Russian language abstracts has been followed in this publication.

POLAND / Cultivated Plants. Grains. Legumes. Tropical M-1  
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6199

Author : Birecka, H.; Tucholka, Z.; Lisiewicz, A.

Inst : Poznan Chemical Institute

Title : Studies on the Utilization of Fertilizers in  
the Cultivation of Summer Grains in Rows

Orig Pub : Roczn. nauk rolnyczych, 1957, A76, No 1, 31-41

Abstract : The results of 11 field experiments, conducted  
at the Chemical Institute in Poznan, concerning  
the use of nitrogen and potassium fertilizers  
together with granulated P<sub>c</sub> in rows, are given  
in this paper. Higher yields were obtained in  
all cases when a full dose of N was applied in  
the rows than when the same fertilizer was broad-  
cast. An even higher increase in the yield was

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Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6199

obtained by the simultaneous row application of  
N and granulated P<sub>c</sub>. Small doses of N applied  
in rows with additional quantities broadcast to  
make up a full dose give better results than  
the application of the full dose by broadcast-  
ing alone. -- A. F. Khlystova

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POLAND / Cultivated Plants. Grains. Legumes. Tropical M-1  
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6200

Author : Ruebenbauer, T.

Inst : Not given

Title : Selection of Grain Crops in Poland

Orig Pub : Hodowla rosl. aklimat. i nasienn., 1957, 1,  
No 4, 461-475

Abstract : No abstract given

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USSR / Cultivated Plants. Grains. Legumes. Tropical M-1  
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6202

Author : Khovanskiy, N. N.

Inst : L'gov exper.-selection station

Title : Biological Peculiarities of the Breed of Winter  
Wheat Obtained From Seeds Taken From the Stalks  
Formed in the Spring

Orig Pub : Byul. nauchno-tekhn. inform. L'govsk. opytno-  
seleks. st., 1958, vyp 1, 53-56

Abstract : Data resulting from a study of the effect of  
spring stalk-formation on the biological char-  
acteristics of winter wheat is given. The  
cessation of winter properties and the appear-  
ance of summer forms can take place even in the  
case of a single pre-winter sowing. The loss of

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Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6202

winter properties as a result of spring stalk-formation can be accompanied by the appearance of other varieties and even other species.

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Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6203

Author : Ignat'ev, B. K.  
Inst : All-Union scient.-res. inst. of oleaceous and  
ethero-oleaceous crops  
Title : The Improvement of Conditions of Nutrition of  
Winter Wheat, After Preceding Crops Which Were  
Plowed

Orig Pub : V sb. n.-i. in-ta maslichn. i efiro-maslichn.  
kul'tur za 1956 g., Krasnodar, "Sov. Kuban'",  
1957, 218-221

Abstract : Fertilizers, even when they are introduced only  
in small doses in order to help the growth of  
winter wheat sowed after preceding crops which  
had been plowed, increase its yield considerably.

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6203

Fertilizers, when they are introduced during pre-sowing cultivation, are highly beneficial to the yield. Granulated P<sub>c</sub> is particularly effective. Good results were obtained with an early top dressing by using phosphorous-nitrogen fertilizers. When there is a dearth of mineral fertilizers, they should be used first in the fields, where wheat follows corn. --  
Ye. I. Saks

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POLAND / Cultivated Plants. Grains. Legumes. Tropical M-1  
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6204

Author : Roman, T.  
Inst : Cracow Institute of Plant Selection and  
Acclimatization

Title : The Evaluation of the Disposition of Wheat  
Varieties to the Sprouting and Shedding of  
Grain

Orig Pub : Hodowla rosl. aklimat. i nasienn., 1957, 1,  
No 4, 541-558

Abstract : Data, collected at the Cracow Institute of  
plant selection and acclimatization on the  
determination of the tendency of winter wheat  
varieties to sprouting and shedding of grain,  
is given in this paper.

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BULGARIA / Cultivated Plants. Grains. Legumes.  
Tropical Cereals.

M-1

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6205

Author : Simeonov, Boris  
Inst : Dobrudzha scient.-res. institute  
Title : Pre-Sowing Preparation of the Soil for the  
Cultivation of Winter Wheat After Late Pre-  
ceding Crops

Orig Pub : Byul. nauchno-proizv. inform. Dobrudzh. nauchno-  
izsled. in-t, 1957, No 2, 3-6

Abstract : No abstract given

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USSR / Cultivated Plants. Grains. Legumes. Tropical M-1  
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6206

Author : Nurmukhamedov, B.  
Inst : Moscow Agricultural Academy im. K. A. Timiryazev  
Title : Some Problems of Agricultural Engineering of  
Winter Wheat in the Tambov Oblast'

Orig Pub : Sb. stud. nauchno-izsled. rabot Mosk. s.-kh.  
akad. im K. A. Timiryazeva, 1957 (1958), vyp 7,  
68-72

Abstract : No abstract given

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POLAND / Cultivated Plants. Grains. Legumes. Tropical M-1  
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6208

Author : Slabonski, A.

Inst : Not given

Title : Selection of Wheat With High Quality Grain

Orig Pub : Hodowla roślin., aklimat. i nasienn., 1957, 1,  
No 4, 498-508

Abstract : No abstract given

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USSR / Cultivated Plants. Grains. Legumes. Tropical M-1  
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6209

Author : Mikharev, V. A.

Inst : Chkalov Agricultural Institute

Title : The Sowing of Durum Wheat by Separate Seed  
Fractions

Orig Pub : Zemledeliye, 1957, No 3, 80-82

Abstract : The results of the study at the Chkalov agricultural institute (1954-1956) of the norms of sowing of durum wheat (Melanopus 69 variety) in relation to the size of seeds is given in this paper. Excessive density of sowings (6.5 millions for small seeds, 5.5 mil. for medium and large sizes on 1 ha) causes the plants to become depressed. This phenomenon

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Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6209

is accompanied by a sharp decrease on their yield. It is recommended to sow durum wheat separately, by fractions, with different norms of sowing. Data on the yield in various fractions and sowing norms, are given. In the central zone of the Chkalov oblast' it is recommended to sow durum wheat seeds when their absolute weight is under 25 g in quantities of 5.5 mln per 1 ha. When their weight is 30-32 g the quantity should be 4 - 4.5 mln; and when the weight is over 40 g, the quantity should not be under 3.5 mln grains per ha. -- G. N. Chernov

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BULGARIA / Cultivated Plants. Grains. Legumes M-1  
Tropical Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6213

Author : Petrova, Mariya  
Inst : Dobrudzha scient.-res. Institute  
Title : Fertilization of Wheat

Orig Pub : Byul. nauchno-proizv. inform. Dobrudzha  
nauchno-issled. in-t, 1957, No 2, 15-16

Abstract : No abstract given

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BULGARIA / Cultivated Plants. Grains. Legumes. Tropical Cereals. M-1

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6214

Author : Gotsov, Kosta; Kazakova, Klera  
Inst : Dobrudzha scient.-res. Institute  
Title : Certain Problems in Wheat Sowing

Orig Pub : Byul. nauchno-proizv. inform. Dobrudzh.  
nauchno-izsled. in-t, No 2, 7-14

Abstract : No abstract given

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USSR / Cultivated Plants. Grains. Legumes. Tropical Cereals. M-1

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6215

Author : Musiyko, Z.; Zueva, L.  
Inst : Odessa Hydrometeorological Institute  
Title : The Effect of Agrometeorological Conditions on the Yield of Wheat Sowed During Various Periods

Orig Pub : Tr. Odessk. gidrometeorol. in-ta, 1958, vyp 16,  
3-8

Abstract : Experiments were started in the fields of the All-Union Selection-Genetic Institute in the fall of 1955 to study the effect of the periods of sowing of winter rye on the yield of the green mass in the south of the Odessa oblast'. The seeds of winter rye of the Odesskaya 1 variety were, at intervals of 10 days, sown over the

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Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6215

black-fallows in seven different periods between August 20th and October 20th. The depth of sowing was 6 - 7 cm. The green mass was harvested twice; the first time was on May 15th for all periods of sowing. The second time, the plants were harvested during the phase of ear formation; the harvesting was carried out separately for plants belonging to different periods of sowing. The best period for winter rye sowing was between September 10th and 20th. The reasons for the lowering of the yield corresponding to other periods of sowing are analyzed. --

B. I. Kazachek

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GDR / Cultivated Plants. Grains. Legumes. Tropical M-1  
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6217

Author : Nover, Ilse; Mansfeld, Rudolf  
Inst : Univ. of Halle and Berlin Academy of Sciences  
Title : 1. The Resistance of Barley and Wheat of Gatersleben. 2. Study of the Resistance of Winter Barley to Erysiphe Graminis DC. f. sp. hordei Marchal.

Orig Pub : Kulturpflanze, 1956, 4, 341-349

Abstract : Vessels with plants of a variety which was receptive to the Erysiphe graminis, were inserted in the fall among the sowings of 225 studied varieties. An evaluation, according to the 4 point mark system, and a description of the character of chlorotic spots were carried

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Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6217

out in June of the next year. The more resistant varieties were contaminated separately with 7 strains among the groups A, C, D, B, which occur in the hothouse, and with strain F, which originated spontaneously from B. 88% of the barley plants were contaminated by strains A and C. Six varieties, belonging to the hexastichon var. hybicum morphological group displayed a high resistance against all fungus strains; six varieties were resistant against some of the strains. Varieties, which were mostly of recent origin (6%) varied with regard to their susceptibility to disease. These experiments were carried out at the Phytopathological Institute, University of Halle and at

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Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6217

the Research Institute of Cultivated Plants,  
Berlin Academy of Sciences. -- B. E. Kravtsova

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USSR / Cultivated Plants. Grains. Legumes. Tropical M-1  
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6218

Author : Chervyakov, P. A.  
Inst : Khar'kov Agricultural Institute  
Title : The Effect of Presowing Treatment of Barley  
Seeds on Their Productivity

Orig Pub : Zap. Khar'kovsk. s.-kh. in-ta, 1958, 15(52),  
51-62

Abstract : The experiments took place under laboratory  
and field conditions in 1954-1955. They in-  
volved summer barley grown with two fertilizers  
in the following variations: soaking of the  
seeds in water at an initial temperature of 70°  
during 24 hours with subsequent drying up to  
115-118% of the initial weight (I); heating

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Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6218

in water at a constant temperature of 40° during  
3 hours with drying as above (II); soaking  
during 6 hours in water at a temperature of 18-  
19° and heating during 1 hour at 40° (III);  
heating of dry seeds during 1 hour at 40°  
(IV); soaking in an infusion of branched wheat  
during 24 hours with drying as above (V).  
The first and the fifth variations were most  
effective. The Bibliography contains 31  
titles. -- B. I. Kazachek

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USSR / Cultivated Plants. Grains. Legumes. Tropical M-1  
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6219

Author : Zelenskiy, S. S.  
Inst : L'gov Experimental Station  
Title : The Methods and Results of Oat Selection at  
the L'gov Station

Orig Pub : Byul. nauchno-tekhn. inform. L'govsk. opytno-  
selekt. st., 1958, vyp 1, 48-52

Abstract : Hybridization between local oat varieties belonging to different "Mutik" and aristate forms was the principal condition for the creation of the initial selection material in the experiments carried out at the L'gov Experimental Station. Subsequent selection work was conducted by using the method of individual multiple selection

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Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6219

among hybrid varieties. The best oat variety which was developed in this manner is the L'govskiy 1026. In 1957, the State commission (Goskomissiya) recommended that it be grown in Kurskaya, Lipetskaya, Voronezhskaya and other oblasts. -- Ye. I. Saks

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POLAND / Cultivated Plants. Grains. Legumes. Tropical M-1  
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6220

Author : Zawadskiy, St.  
Inst : Not given  
Title : Preliminary Study of the Resistance of Oat Varieties to the Swedish Frit Fly in the Fields  
Orig Pub : Hodowla rosl. aklimat. i nasienn, 1957, 1,  
          No 56, 723-743

Abstract : Later sowings of oat undergo more damage than the early ones. The Udych Zhulty, Przebuy II and L. P. 214 varieties are resistant to the Swedish fly. Proporchik, Mlokhovskiy, Seletskiy, Teodoziya, Antonin'ski Byaly and Byaly Mazur - are more susceptible to this pest.

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Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6221

Author : Yegikyan, A. A.; Karapetyan, I. O.  
Inst : Armenian Scient.-Res. Agricultural Institute  
Title : The Selection of Corn Parental-Pairs in Order to Obtain Productive Hybrids

Orig Pub : Byul. nauchno-tekhn. inform. Arm. n.-i. in-t zemledeliya, 1957, No 3, 3-5

Abstract : Data, collected at the Parakarsk Experimental Base as a result of trials of varieties, varietal strains, inter strain hybrids, hybrid populations and inter varietal hybrids in 1955-1960, is given in this paper. All varieties were distributed into 5 groups according to the time of sowing. Dent corn varieties

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6221

are more productive than the flint corn. The yield of prospective varieties attained 23 - 35 cwt/ha. The hybrid populations, double inter-strain, and varietal strain hybrids produce the best yield of cobs and of green mass (30 - 49 cwt/ha); simple inter strain hybrids are less productive. The highest yield (28 - 47 cwt/ha) was produced by the following combinations: Flint white Gruzinskaya No 10 x Sterling, Flint yellow Tumanyan x Gorskaya yellow, Flint yellow Tumanyan x Voronezh 76, Grushevskaya x Early Gorets, Early Gorets x Minnesota 13 and Char'kov white dent x Sterling. These parental pairs are recommended to obtain inter varietal hybrid seeds. -- A. F. Khlystova

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USSR / Cultivated Plants. Grains. Legumes. Tropical M-1  
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6222

Author : Sheina, K. S.  
Inst : Voroshilovgrad Agricultural Institute  
Title : Preliminary Results of the Study of Hybrids  
and of Corn Varieties

Orig Pub : Nauchn. zap. Voroshilovgradsk. s.-kh. in-ta,  
1957, 4, No 2, 76-85

Abstract : 212 corn varieties of various origins, belonging to six subspecies were studied at the experimental farm of the Voroshilovgrad Agricultural Institute (low-bottom land of the Lagan' River) during 1955-1956. The description of conditions of growing of the collection, the detailed phenological observations, the yield of grain

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6222

and of green mass are given. Early varieties produced a lower yield than medium and late ripening during both years; the most productive varieties of the last two groups are indicated. There were no forms which were fully resistant to common smut in the studied collection; the early varieties were more susceptible to disease than the others. -- O. V. Yakushkina

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Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6223

Author : Dmitrieva, A. N.  
Inst : Ukrainian sci.-res. Institute of plant cult.  
selec. and genet.

Title : The Biochemistry of the Grain of Corn Hybrids

Orig Pub : Byul. Ukr. n.-i. in-ta rastenievodstva,  
selekts. i genet., 1958, No 2, 51-53

Abstract : Because of their content of fat and starch, hybrids occupy an intermediate position between the parental forms, approaching the highest yielding ones, or even surpassing them. But they occupy an intermediate position or even have a lower protein content in the majority of cases. However, in Fo, the content of protein

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6223

in the grain of the following hybrids was higher by 1.2-2.2% than in the parent which was richest in protein: Khar'kov white dent x Ivory king, Orange x Sterling, Ivory king x Rice. In creating hybrids, not only the yield and biological characteristics, but also the chemical productivity must be taken into consideration. -- M. V. Dranishnikov

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USSR / Cultivated Plants. Grains. Legumes. Tropical M-1  
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6230

Author : Molchadskiy, S. R.; Gorbulin, N. F.  
Inst : Kuybyshev Agricultural Institute  
Title : The Results of Experiments Concerning the Agricultural Engineering and Testing of Corn Varieties in 1955

Orig Pub : Izv. Kuybyshevsk. s.-kh. in-ta, 1957, 12, 29-36

Abstract : High yields of green stuff (209-234 cwt/ha) and low yields of grain (2.2-7.3 cwt/ha) were obtained with the following late ripening varietes: Krasnodarskaya 6, ordinary Krasnodarskaya of the Limimg type, and white dent Osetinskaya. The Volzhskaya, Bessarabskaya, Rozenbergskaya, Bezenchukskaya hybrid, early

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6230

Gorets, white dent Khar'kov varieties produced a low yield of green mass (138 - 184 cwt/ha) but gave the highest yield of grain (12.3 - 15.9 cwt/ha). The best results in obtaining cobs without husks are gotten from the Rumanian yellow flint variety (28.8 cwt/ha), which is recommended by the institute for seed sowings. The optimal preceding crops for corn is "Rzhanishche" [variety of rye] which should be sown in the first ten days of May in the southern part of the oblast. It should be sown in the second ten days of May in the northern part of the oblast. -- N. G. Buyakovich

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USSR / Cultivated Plants. Grains. Legumes. Tropical M-1  
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6231

Author : Trusov, M. S.  
Inst : Yaroslavl' Agricultural Institute  
Title : Study of Methods Designed to Increase the Yield of Corn

Orig Pub : Tr. Yaroslavsk. s.-kh. in-ta, 1957, 4, 3-19

Abstract : The best sowing time in experiments carried out at the Yaroslavl' Agricultural Institute on medium argillaceous soil in 1956 was 25 - 30 May. The seeds were put in at a depth of 5 cm. The soil temperature at this depth was higher by 1.3 - 1.8° than at a depth of 8 cm. The sprouts came out a day earlier; the number of empty hills diminished from 6 to 5.6 when sowing

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6231

took place on 25 May and from 3.5 to 1.3% - when it was done on 30 May. The green fodder yield increased by 20 - 8 cwt. The highest yields of Voronezh 76 cobs were obtained with 3 plants in a 60 x 60 hill. The yield was somewhat lower in a 70 x 70 cm hill. The Krasnodarsk 1/49 variety produced 623 cwt/ha of green stuff with 3 plants per 45 x 45 hill. The yield was 500, 2 cwt in a 60 x 60 hill. With 5 plants in a hill of 70 x 70, the yield was 447.1 cwt/ha. The yield of green mass in sowings of corn with peas was higher by 62.5% than in pure sowings. The increase in the percentage of digestible protein was 89.9%. The highest yield was obtained in squares of 45 x 45 with 3 plants

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6231

of corn and 4 of peas (401.1 cwt/ha) as well as with 3 plants of corn and 2 of peas (386.9). Bibl. 18 titles. -- M. V. Dranishnikov

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USSR / Cultivated Plants. Grains. Legumes. Tropical M-1  
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6232

Author : Ivanov, P. K.

Inst : Saratov Agricultural Institute

Title : Certain Problems of Agrotechny for Corn Grown  
on Chestnut Soils

Orig Pub : Vestn. s.-kh. nauki, 1958, No 4, 55-59

Abstract : Experiments were carried out at the Krasnokutsk Experimental Station, at the training experimental farm of the Saratov Agricultural Institute, and at the Kolkhozes of the Saratov oblast. The effects of the following methods of plowing on the yield of corn was studied: with a moldboard at a depth of 20-22 cm (I); at a depth of 32 cm (II); at a depth of 20-22

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6232

cm with a deepening of 10 cm (III); and without a moldboard at a depth of 35 - 40 cm (IV). The effect of fertilization and irrigation with various kinds of plowing was also studied.

Method I produced better results than method IV on clogged soils. The results obtained with methods I and IV were similar on pure soils.

Plowing according to method III produced worse results than methods I and IV. The application of fertilizers and irrigation in the case of deep plowing increases the yield considerably.

-- B. I. Kazachek

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Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6233

Author : Malygin, Yu. N.  
Inst : Volokolamsk Experimental Station  
Title : Times of Sowing and the Planting Depth of Corn  
Seeds in the Non-Chernozem Belt

Orig Pub : Vestn. s.-kh. nauki, 1958, No 4, 49-54

Abstract : Laboratory-field experiments in sowing corn  
for silage were carried out at various times  
and at various depths on the Volokolamsk  
experimental field at Shakhevskiy Rayon, Mos-  
kovskaya Oblast' on medium-podzolic, coarsely  
dust-like argillaceous soils in 1954-1955. It  
is most profitable to sow corn for silage under  
the above indicated conditions at the beginning

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6233

of June. The seeds should not be planted in  
deeper than 4 cm, taking into consideration the  
moisture of the soil. -- B. I. Kazachek

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Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6234

Author : Lappo, A. I.; Sokolov, V. S.  
Inst : Bielorussia Agricultural Institute  
Title : Depth of Cultivation Between Rows of Corn  
Sowings in the Non-Chernozem Belt

Orig Pub : Vest. s.-kh. nauki, 1958, No 4, 45-48

Abstract : Experiments were carried out at the Bielorussian Agricultural Institute on sandy loam, medium and heavy argillaceous loams in 1955-1957. Minnesota 13 extra corn was sown according to the square-pocket method (70 x 70 cm). Cultivation was carried out three times in two directions. Deep mellowing on 10-12 cm during the whole period gives negative results. The

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6234

best results were obtained with shallow cultivation on 4-6 cm. Hilling gave positive results only on light soils during a moist summer; it is harmful on heavy soils. The main reason for the lowering of yields in case of cultivation between rows is the damage inflicted to the roots. It is recommended to use shallow cultivation which is sufficient for destroying weeds and safe for corn roots. -- B. I. Kazachek

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Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6236

Author : Largskiy, Yu. N.  
Inst : Voronezh Agricultural Institute  
Title : Application of Fertilizers According to the  
Maltsev Method of Soil Cultivation for Corn  
and Winter Wheat

Orig Pub : Zap. Voronezhsk. s.-kh. in-ta, 1957, 27, No 2,  
349-355

Abstract : Experiments comparing the effect of fertiliza-  
tion in conjunction with plowing without mold-  
board on 40 cm and with moldboard on 32 cm on  
leached out thick chernozem on Voronezh hybrid  
corn and Stepnaya 135 winter wheat were carried  
out at the field experimental station, Voronezh

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Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6236

Agricultural Institute. The supply of moisture  
in the soil under the plants, the nutrient  
supply, growth and development of plants, the  
yield of grain all are higher in the case of  
plowing without moldboard. The highest yield  
of corn was obtained when organic-mineral  
fertilizer + cluster sowing were used. The  
best yield for winter wheat was obtained by  
using P8K10 fertilizer and plowing in rows. --  
B. I. Kazachek

Card 2/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1  
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6238

Author : Kuleshova, P. F.  
Inst : Chelyabinsk Agricultural Experimental Station  
Title : The Effect of the Density of Plants in Hills  
on the Yield of Corn

Orig Pub : Byul. nauchno-tekhn. inform. Chelyab. gos.  
s.-kh. opytn. st., 1956, No 1, 7-10

Abstract : Field experiments were carried out at the  
Chelyabinsk experimental station in 1955-1957  
in order to find out the optimal density of  
corn (Krasnodarskaya 1/49 and Kazanskaya 128  
varieties) in hills so as to obtain the highest  
possible yield. The yield of green mass is a  
direct function of the density of the plants in

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Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6238

the hill - it increases with the density of  
sowings. It is necessary to leave 4 - 5 plants  
in a hill, when corn is cultivated for green  
fodder and silage, and no more than 2 - 3,  
when it is cultivated for grain. -- E. I. Saks

Card 2/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1  
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6240

Author : Lapta, I. A.

Inst : Khar'kov University

Title : The Yield of Corn When the Upper Part of the  
Stalk is Removed in Various Vegetation Periods

Orig Pub : Uch. Zap. Khar'kovsk. un-t, 1956, 72, 87-90

Abstract : No abstract given

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Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6241

Author : Shevchenko, N. Ya.

Inst : Odessa Hydrometeorological Institute

Title : Formation of Rice Varieties

Orig Pub : Tr. Odess. gidrometeorol. in-ta, 1958, vyp 16,  
121-126

Abstract : Experiments, carried out in 1955-1957, on the  
action of low temperatures on germinating seeds  
of rice of White SKOMS, LKVR, Golden sprouts  
and other varieties showed that the lowering  
of temperature caused a change in coloration  
of the rice seed vessel. It also increased its  
glassiness and produced a change in its taste.  
The action caused by cold was accompanied during

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Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6241

the experiments by a rigid water regime in the period of vegetation. It brought about the creation of more cold and drought resistant forms. The new Bezostyy 290 variety was the most cold resistant among them. -- Ye. I. Saks

Card 2/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1  
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6242

Author : Smetanin, A. P.  
Inst : Kuban' Rice Experimental Station  
Title : Contribution to the Methods of Castration of  
Rice Flowers

Orig Pub : V sb.: Kratkiye itogi nauchno-izsled. raboty  
(Kubansk. ris. opytn. st.) za 1956 g.,  
Krasnodar, "Sov. Kuban'", 1957, 99-103

Abstract : An experiment was carried out under field conditions with the Krasnodarskiy 424 and VROS 213 varieties in order to establish the causes of low germination of seeds when hybridization of rice is carried out. The flower scales were forced open by putting straws among them

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Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6242

during the formation of panicles in the Krasnodarskiy 424 variety; spikelets opened before, during and after blooming. The flower scales on the VROS 213 variety were cut off, as in usual castration. When the flower is forced open, ovary growth stops early and only an insignificant part of the ovaries ripens. The spikelets of the lower part of the panicle suffer most from these unfavorable conditions. When castration is carried out by cutting off the flower scales, the destruction of ovaries goes on during the whole time of the development of the seed vessel. If the flower scales are cut before the beginning of the period of blooming, most ovaries are 1.5 mm large; the number of ovaries

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Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6242

of 5 mm increased during blooming. If the flower scales are cut after blooming, the majority of ovaries achieve their development completely. The cutting of flower scales in rice spikelets, when preparing for castration, causes the ovary to dry up. Bibl. 12 titles.  
-- T. I. Shapiro

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USSR / Cultivated Plants. Grains. Legumes. Tropical M-1  
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6243

Author : Krasnook, N. P.  
Inst : Kuban' Experimental Station  
Title : Gametogenesis Stage in Rice

Orig Pub : V sb.: Kratkiye itogi nauchno-izsled. raboty  
(Kubansk. ris. opytn. st.) za 1956 g.  
Krasnodar, "Sov. Kuban'", 1957, 87-91

Abstract : The results of vegetation experiments made with late ripening Bol'shevik and early Bozu varieties are given in this paper. The periods when the plants pass through the gametogenesis stage were established by how long rice is allowed to remain without blue-violet rays. This was achieved by putting the plants under a

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Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6243

tartrazine filter. The lack of blue-violet rays was most effective on the Bol'shevik variety during the first period of panicle formation; on the early Bozu, the results were most noticeable during the period of formation of stamen tubercles. The gametogenesis stage in early sowing starts after the luminous stage and lasts till the formation of staminal tubercles in the case of the Bol'shevik variety. Late sowings prolong the course of gametogenesis stage. The lack of blue-violet rays increases the growth of plants in height. Bibl. 11 titles. -- T. I. Shapiro

Card 2/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1  
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6248

Author : Velichko, E. B.

Inst : Not given

Title : Sowing of Rice and the Water Resources of  
Kuban'

Orig Pub : S.-kh. Kubani, Inform. biol., 1957, No 2, 42-45

Abstract : The advantages of grass-rice crop rotations over rice-fallow and particularly over rice monoculture both in terms of yield and water outlay per 1 ha of the surface and 1 cwt of rice were taken into consideration. The urgent need for protein fodder was also considered by the author, who recommended to introduce sowing an eight crop rotation with following

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6248

alternation of crops in the Kuban' zone of rice: 1, 2 perennial herbs, 3, 4, 5 - rice, 6 - fallow, 7, 8 - rice. One half of the fallow field (in the spring) and then the other (in the summer) can be sown with a single cut mixture of grasses. The planning and semi-fallow cultivation can be carried out in the other half. -- M. V. Dranishnikov

Card 2/2

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1  
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6249

Author : Kayumov, G.  
Inst : Tadzhik Agricultural Institute  
Title : The Effect of Cultivation Without Moldboard  
on the Yield of Rice

Orig Pub : S.-kh. Tadzhikistana, 1957, No 9, 44-46

Abstract : The results of experiments conducted by the Tadzhik Agricultural Institute in the Gissarskiy Rayon, in 1956 in a watered sector, the purpose of which was to compare the yield of rice cultivated, according to Mal'tsev's method, with the yield obtained by plowing with a moldboard (control) are given in this paper. The following advantages were observed in the case of the

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6249

first method; a greater density of plants (294.3 against 268.4 per ha), greater height 117.9 and 108.8 cm, respectively, an increase in yield of 4 cwt/ha, less weed choking. Finally, the plants did not lodge. --  
N. G. Buyakovich

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USSR / Cultivated Plants. Grains. Legumes. Tropical M-1  
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6251

Author : Dzhulay, A. P.  
Inst : Kuban' Experimental Station  
Title : The Effect of the Sowing Time on the Yield  
of Rice

Orig Pub : S.-kh. Sev. Kavkaza, 1958, No 2, 47-51

Abstract : Experiments were carried out with Dubovskiy 129, VROS-213, Krasnodarskiy 424 varieties at the experimental base of the Kuban' rice experimental station in 1955-1957. The best sowing time for early ripening varieties is the second ten days of May; for medium ripening varieties, the optimum period is the first ten days of May. Sowings in June produce a very

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Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6251

low yield. Data on the yield of rice in relation to different sowing times of sowing are given. -- N. Ya. Vorontsova

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USSR / Cultivated Plants. Grains. Legumes. Tropical M-1  
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6252

Author : Bykov, B. V.  
Inst : Uzbek Rice-Experimental Station  
Title : Contribution to the Problem of the Time of  
Fertilizer Application in Rice Cultivation

Orig Pub : Nauchno-tekhn. inform. Uzb. ris. opytn. st.,  
1957, No 1, 14-18

Abstract : The best yield in field and vegetation experiments (1954-1955) was obtained with UzROS-7-13, UzROS-269, UzROS-5-A rice varieties, when the fertilizer was applied before sowing and over the sprouts. The methods and conditions of carrying out the experiments and the data on the

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Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6252

effect of the time of fertilizer application  
on the yield of grain are given.

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USSR / Cultivated Plants. Grains. Legumes. Tropical M-1  
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6255

Author : Shekun, G.  
Inst : Acad. Sci. USSR, Moldavian Branch  
Title : Cultivation Prospects and Some Agrotechnical  
Problems with Sorghum in Moldavia

Orig Pub : Zemledeliye i zhivotnovodstvo Moldavii, 1958,  
No 1, 5-12

Abstract : Data on the testing of sorghum in the variety  
net for study in the Moldavian branch, Acad.  
of Sci. USSR and at the field cultivation  
station, Kishenev Agricultural Institute, is  
given. Data on the results of cultivation of  
sorghum in some kolkhozes and sovkhozes of  
the republic are also given. The yielding

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USSR / Cultivated Plants. Grains. Legumes. Tropical M-1  
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6255

capacity of sorghum for green fodder, silage  
and grain in comparison with corn and Sudan  
grass was studied at the experimental station  
of field cultivation of the Kishenev Institute.  
Chemical analyses of the green mass, silage  
and grain were carried out. Time and methods  
of sowing, norms of sowing, time of mowing  
were studied. Mixed sowings of sorghum with  
corn and leguminous crops, as well as stubble  
sowings of sorghum after various crops were  
tested. Appropriate recommendations are given  
on all these problems and they permit to affirm  
the expediency of introducing sorghum as a  
staple crop in Moldavia. The expediency of  
increasing the sowings of Chinese sugar cane

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Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6255

and grain sorghum in the kolkhozes and sovkhozes  
of the republic up to 15 - 20% in relation to  
the sowing area of corn is recognized. --  
N. N. Kuleshov

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USSR / Cultivated Plants. Grains. Legumes. Tropical M-1  
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6256

Author : Mironov, A. K.

Inst : Not given

Title : Experimental Cultivation of Sorghum in  
Stavropol'ye

Orig Pub : Materialy po isuch. Stavropol'sk. kraya,  
vyp 8, 1956, 43-59

Abstract : Data, supplied by variety trial plots,  
scientific research, institutions, as well  
as by kolkhozes and sovkhozes cultivating  
sorghum on large areas, showed that in dry  
regions, on salted soils, and in dry years, the  
yield of sorghum exceeds that of corn. Of  
particular significance was 1955 - a dry year,

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Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6256

when sorghum was the only crop, which produced grain, green mass and silage in some regions. Good results were obtained by cultivating sorghum in the Manych pastures, where yearly precipitation is 150-200 mm. The biology and the agrotechny pertaining to sorghum are described. The best varieties for Stavropol'ye are: Karlikovaya Dzhugara 185 [dwarf milo], Ranniy Yantar' Dnepropetrovskiy, Oranzhevoye 450, Krasnyy Yantar' 271/585, Stavropol'skiye 98. -- N. N. Kuleshov

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USSR / Cultivated Plants. Grains. Legumes. Tropical M-1  
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6257

Author : Sin'kovskiy, L. P.; Voznesenskiy, K. N.;  
Yermolenko, M. A.

Inst : Animal Husbandry Institute, Tadzh SSR  
Title : Sorghum on the Tadzhikistan Non-Irrigated Land

Orig Pub : S.-kh. Tadzhikistana, 1957, No 7, 24-28

Abstract : The Institute of Animal Husbandry, TadzhSSR, carried out experiments in 1952 and 1953 on the sowing of sorghum on unirrigated land in the driest regions of the republic. Early Gaolyan 178 variety produced 34.3 and 26.5 cwt/ha of hay. The vegetation period before ripening lasted only 66 days. Sowing was done on March 20th, sprouts appeared on April 2nd;

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Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6257

seeds ripened on June 7th. Experiments conducted in subsequent years showed that in the case of fall plowing, when the sowing takes place at the end of March - beginning of April with a distance between rows of 60 cm, and when the norm of sowing is 6 - 7 kg/ha, the early sorghum varieties produce good crops of green mass and hay on these unirrigated plots. Late ripening varieties are not suitable there, because their racemes dry up and do not produce seeds. Corn cannot grow under these conditions (absence of moisture). Sorghum gives high yields of green mass and of silage, if the soil is watered. It gives an aftermath which is equal in productivity to the first mowing, it is mowed for

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Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6257

the first time in the period when panicles appear. The first mowing (August 9th) on watered soil produced 406.7 cwt/ha of green mass in 1956 in the Gissar Valley, kolkhoz im. Stalin. After the second mowing October 9th the yield was 424.3 cwt/ha. When the soil is watered, it is possible to have two harvests during the vegetation period. A high sugar content in the stalks of sorghum makes it an excellent raw material for silo. It can be utilized as a component for ensilage for crops, which do not lend themselves readily to ensilage. -- N. N. Kuleshov

Card 3/3

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1  
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6258

Author : Malinovskiy, G. A.  
Inst : Chelyabinsk Agricultural-Experimental Station  
Title : Experimental Cultivation of Sorghum

Orig Pub : Byul. nauchno-tekhn. inform. Chelyab. gos.  
s.-kh. opytn. st., 1958, No 1, 41-43

Abstract : Data on comparative testing of Chinese sugar cane (Sorghum saccharatum) and grain sorghum, corn, Sudan grass and mohar as grain crops are given. Chinese sugar can can be recommended for production testing in Chelyabinskaya Oblast' as a drought resistant crop, giving

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Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6258

comparatively high yields of green mass. --  
E. I. Saks

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USSR / Cultivated Plants. Grains. Legumes. Tropical M-1  
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6259

Author : Kiyak, G. S.; Izdrik, V. M.

Inst : Acad. Sci. UkrSSR

Title : Methods of Buckwheat Sowing in the L'vovskaya Oblast'

Orig Pub : Pratsi in-tu agrobiol. AN UkrSSR, 1957, 7,  
67-77

Abstract : Under the soil-climatic conditions of L'vovskaya Oblast' (experiments at the Agrobiological Institute, AS UkrSSR), buckwheat, when it is sown in continuous rows, develops faster and gives a yield of grain, which is greater by 1 - 3 cwt/ha than in wide-row planting. The best norm for sowing in continuous rows

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Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6259

is 80 kg/ha. In the case of wide-row sowing  
the best rate is 50 kg/ha.

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USSR / Cultivated Plants. Grains. Legumes. Tropical M-1  
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6261

Author : Gordiyenko, V. A.

Inst : Moldavian Sci.-Res. Agricultural Institute

Title : Production of Soy Sexual Hybrids with Bees

Orig Pub : Byul. nauchno-tekhn. inform. Mold. n.-i. in-ta  
s.-kh., Kishinev, 1957, 56-58

Abstract : Bees in a netted cell were used by training them with sugar sirup steeped in the soy flowers for selection purposes in order to obtain sexual hybrids between Beletskaya 636 (Ucrainica En. variety) and Beletskaya 640 (Communis En. variety) soy. These experiments were carried out at the Moldavian Scientific-Research Institute of Agriculture in 1952.

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Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6261

28.6 (Beletskaya 636) and 41.1% (Beletskaya 640) hybrid plants were obtained in F<sub>1</sub>. -- M. V. Dranishnikov

Card 2/2

USSR / Cultivated Plants. Potatoes, Vegetables, Melons. M-2

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6264

Author : Sokol, P. F.

Inst : Not given

Title : Respiration Rate of Potato Tubers During Storage

Orig Pub : Agrobiologiya, 1958, No 2, 66-71

Abstract : The respiration rate of tubers during 6 months of storage was determined in a desiccator (Ella variety). The respiration of tubers in cellar at a temperature of 11.5 - 16° was least slowed down. One kg of tubers exhaled 2 - 3 mg of CO<sub>2</sub> in an hour. Exhalation of CO<sub>2</sub> in a laboratory at 15 - 18° increased up to 7 mg in December and 11 mg in March. The respiration of the tubers sown in the spring was more

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6264

intensive in a refrigerator than in a cellar; the respiration of tubers sown during the summer was more intensive than in the laboratory. The exhalation of CO<sub>2</sub> at the end of the storage period reached 12.2 mg. Under the influence of high concentrations of CO<sub>2</sub>, the eyes dried up and the lenticels became affected. The loss of weight was 7% in laboratories. In cellars, it was 4.7 among tubers sown in the spring and 2.5% among tubers sown in the summer. It was 0.7% in desiccators, when they were covered with earth, and 2.7% - in refrigerators. The loss of weight in experimental cells was 10% when the humidity of the air was 100%. The tubers contained 5% sugar in refrigerators, 1.2% in cellars,

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6264

0.4 - 0.6% in laboratories. Greater losses of carbohydrates for the whole period of storage were observed in refrigerators and the laboratory than in cellars. The greatest losses of vitamin C were observed in refrigerators. --  
M. P. Ovsyannikova

Card 3/3

USSR / Cultivated Plants. Potatoes, Vegetables, Melons. M-2

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6266

Author : Palienko, T. S.; Merzhvinskaya, I. M.;  
Korbut, G. A.

Inst : Not given  
Title : The Effect of Various Methods of Applying  
Manure and Mineral Fertilizers on the Yield  
of Potatoes

Orig Pub : Udobreniye i urozhay, 1958, No 5, 19-21

Abstract : The application of N<sub>30</sub>P<sub>45</sub>K<sub>60</sub> kg/ha in holes during the course of potato sowing in experiments carried out in 1955-1956 increased the yield of tubers by 2.2 and 3.5 t/ha, respectively, in comparison with broadcasting the same fertilizers. The addition to N<sub>30</sub>P<sub>45</sub>K<sub>60</sub> kg/ha of 5 t/ha of manure during the same

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6266

experiments and of 3 and 6 t/ha in the experiment conducted in 1954, when localized fertilization was practiced, had no effect on the yield. The addition of 20 t/ha of manure to the mixture N<sub>30</sub>P<sub>45</sub>K<sub>60</sub>, placed by broadcasting increased the yield by 20%. The addition of 3 - 6 t/ha of manure had no effect on the yield. Hole placement of the VASKhNIL mixture (All-Union Agricultural Institute im. Lenin) during sowing (3 t of manure, 3 cwt of P<sub>c</sub> and 3 cwt of lime) and of a mixture enriched with K<sub>60</sub> produced an increase in the yield of potatoes of 2.9 and 11.9 cwt/ha, respectively (control: 158.6 cwt/ha). Mineral fertilizers somewhat diminished the starch content in the tubers. The experiments were carried out on

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6266

leached-out chernozem containing little humus and turf-podzolic soils in Zhitomirskaya Oblast'. -- V. V. Prokoshhev

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USSR / Cultivated Plants. Potatoes, Vegetables, Melons. M-2

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6268

Author : Nevskiy, S. P.; Kon'kova, R. D.  
Inst : Stavropol' Scient.-Res. Agricultural Institute  
Title : Water Consumption and Spraying of Potatoes  
Sown in the Spring in the Eastern Zone of the  
Stavropol'skiy Kray

Orig Pub : Byul. nauchno-tekh. inform. Stavropol'sk.  
n.-i. in-ta s.-kh., 1957, No 3, 46-48

Abstract : Generalizations based on the results of  
experiments carried out on chestnut soils  
of the Stepnovskiy experimental field and of  
the Kursk substation of the Stavropol' Experi-  
mental Meliorative Station in 1947-1952 is  
given in this paper. Data on water consumption  
by potato plants in various growth phases is

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USSR / Cultivated Plants. Potatoes, Vegetables, Melons. M-2

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6268

given. Recommendations on norms and times  
of potato spraying are also given. -- V. S.  
Shmal'ko

Card 2/2

USSR / Cultivated Plants. Potatoes, Vegetables, Melons. M-2

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6269

Author : Turans'kiy, V.

Inst : Not given

Title : The Effect of the Bed on the Yield and  
Quality of Potatoes

Orig Pub : Byul. nauk.-tekhn. inform. Ternop. derzh.  
sil's'kogospod. dosl. st., 1957, No 1, 14-17

Abstract : No abstract given

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USSR / Cultivated Plants. Potatoes, Vegetables, Melons. M-2

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6270

Author : Gladkov, A.

Inst : Not given

Title : Spring Cultivation of the Soil for Potato  
Cultures

Orig Pub : S.-kh. Bashkirii, 1958, No 4, 16-18

Abstract : No abstract given

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USSR / Cultivated Plants. Potatoes, Vegetables, Melons. M-2

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6271

Author : Kubikova, R. I.

Inst : Not given

Title : The Results of Testing Some Potato Varieties

Orig Pub : S.-kh. Povolzh'ya, 1958, No 7, 60-61

Abstract : No abstract given

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USSR / Cultivated Plants. Potatoes, Vegetables, Melons. M-2

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6273

Author : Ustimenko, G. V.

Inst : Not given

Title : Seed Cultivation of Jerusalem Artichokes in  
the Central Rayons of the Non-Chernozem Belt

Orig Pub : Seleksiya i semenovodstvo, 1958, No 2, 30-35

Abstract : According to tests carried out during experi-  
ments conducted at the Timiryazev Agricultural  
Academy field station, the most productive  
varieties and forms of Jerusalem artichoke  
were: Belya Urozhaynaya, Saratovskaya,  
Hybrid 120 and Vadim. Liquid manure spread  
over the sprouts in doses of 10 t/ha on a  
seed field used for three years increased the  
yield of tubers by 30%. It is preferable to

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6273

harvest the tubers in order to get seeds in the spring, because in this case, their yield increases by 15 - 20%. The above-ground mass of the Jerusalem artichokes is cut on the seed plots before the start of frost. The Vadim and Saratovskaya varieties from the industrial point of view are the most interesting with regard to the central regions of the non-chernozem belt, because they produce comparatively high yields of green mass and tubers and they hibernate satisfactorily. The propagation of Jerusalem artichokes can also be effected by accelerated means. To obtain this, buds, weighing 2 - 3 g, are cut away from large tubers and planted in hothouses or in peat compost blocks. After 20 - 25 days, when the

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seedling attains 10 - 12 cm, it is planted in a field with a 60 x 60 cm bed. This method makes it possible to obtain 100 - 160 cwt/ha of tubers in one year. -- E. F. Linnik

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6274

Author : Popovich, B.  
Inst : Bryansk Selection Station  
Title : Jerusalem Artichokes

Orig Pub : Nauka i peredov. opyt v s.-kh., 1958, No 3,  
44-45

Abstract : Jerusalem artichokes (Rozovyy and Belyy Urozhaynyy varieties) were planted according to the square-pocket method (60 x 60 cm). There were two tubers in a hill. The experiment was conducted at the Bryansk Selection Station in 1957. 300 - 400 cwt/ha of green mass were obtained in the middle of September with a full mineral fertilization and liming. The yield was 200 - 270 cwt/ha at the end of

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6274

September. The yield of the Rozovyy variety was higher by 30 - 33% than that of Belyy Urozhaynyy. It is recommended to utilize Jerusalem artichokes for hog pasture in the fall (after harvesting of the green mass) and in the spring.

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USSR / Cultivated Plants. Potatoes, Vegetables, Melons. M-2

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6275

Author : Simonyan, A.

Inst : Erevan' University

Title : Study of Vegetable Crops in Nor Bayazet

Orig Pub : Sb. stud. nauchn. tr. Erevansk. un-t, 1958,  
No 8, 157-170

Abstract : The results of variety testing of tomatoes,  
peppers and eggplants, carried out by the  
department of Genetics, Yerevan' University,  
showed the good productivity of some varieties  
of these crops in the mountains.

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6277

Author : Kornygina, I. E.; Kutsenko, G. I.

Inst : L'vov Agricultural Institute

Title : Rational Utilization of Electric Light  
Energy in the Cultivation of Vegetables on  
Shielded Ground

Orig Pub : Sb. nauchn. rabot stud. L'vovsk. s.-kh. in-t,  
1958, vyp 1, 83-90

Abstract : No abstract given

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USSR / Cultivated Plants. Potatoes, Vegetables, Melons. M-2

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6279

Author : Gosev, P. P.

Inst : Not given

Title : Chinese Cabbage Culture

Orig Pub : Sad i ogorod. 1958, No 7, 19-21

Abstract : The practice of growing Chinese cabbage as a filler for tomatoes and cucumbers in hothouses was developed in Khibiny. The first crop of cabbage is carried out 22 - 25 days after sowing. The yield in a hothouse, when cabbage is grown as an independent crop, reached 4 - 6 kg/m<sup>2</sup>; in open ground the yield is 300 - 350 cwt/ha. In order to insure that seeds ripen uniformly, it is necessary to vernalize the seeds for 24 - 36 hours in a warm place and

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6279

then to continue the process during 20 - 25 days at 0.5 - 1°. The yield of seeds reaches 10 cwt/ha.

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6280

Author : Kostanyan, B. A.

Inst : Agric. Institute, Arm SSR

Title : Culture of Tomatoes Issued from Hybrid Seeds

Orig Pub : Izv. AN ArmSSR, Biol. i s.-kh. n., 1958, 11,  
No 3, 67-70

Abstract : Mayak x Krasnodarets (108% increment of yield),  
Mayak x Krasnoznamenny (84%), Krasnyy Dar x  
Mayak (38%), Margib x Krasnyy Dar, which had  
been grafted (258%) and others were found to  
be the best among 40 variants of intervariety  
hybrids and grafts, tested at the Agricultural  
Institute of Arm SSR. The best named of these  
hybrids was also characterized by the high  
quality of its fruits. In addition its fruits  
appear early.

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USSR / Cultivated Plants. Potatoes, Vegetables, Melons. M-2

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6281

Author : Palilov, N. A.; D'yachenko, V. S.

Inst : Scient.-Res. Institute of Vegetable Crops

Title : Biological Reasons Why Onion Leaves Should  
Be Cut at Harvest Time

Orig Pub : V.S., Sad i ogorod, 1958, No 7, 11-12

Abstract : The main losses of onions during storage are  
caused by neck rot, according to the data  
collected by the Scientific Research Institute  
of Vegetable Crops. The causal agent of this  
disease produces spores on the scales of the  
bulb. The conidia of the fungus rest in the  
soil, after the destruction of the bulb. The  
fungus develops on leaves and penetrates into  
the bulb when onions are dried in the field

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6281

after harvesting. The cutting of leaves at harvest time and immediate drying of bulbs in desiccators guarantees a sharp decrease in the incidence of the disease.

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CHINA / Cultivated Plants. Potatoes, Vegetables, Melons. M-2

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6287

Author : Hsu Hsiang-Hao

Inst : Not given

Title : Black Pepper - Aromatic Tropical Plant

Orig Pub : Sheng wu hsüeh t'ung pao, 1957, No 10, 8-11

Abstract : Black pepper (*Piper nigrum*) was brought into the island of Hainan from Viet Nam 20 years ago. The problems of cultivation of black pepper in China are examined.

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USSR / Cultivated Plants. Potatoes, Vegetables, Melons. M-2

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6289

Author : Arbuzov, D. S.

Inst : Penza Agricultural Experimental Station

Title : Soaking of Seeds of Melon Fodder Crops Before  
Sowing

Orig Pub : S.-kh. Povolozh'ya, 1957, No 12, 24-25

Abstract : The effect of soaking seeds before sowing on  
the yield of summer squash of the Saratovskiy  
3 variety and of the Volga gray variety gourd  
was studied at the Penza Agricultural Experi-  
mental Station in 1955-1956. The yield in-  
creased by 21 cwt/ha, when the seeds of summer  
squash were treated with a 10% solution of  
sodium chloride. Soaking in a 10% soda solution  
caused a decrease in yield by 80.7 cwt/ha.

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6289

Soaking of seeds of gourd in a 10% soda  
solution increased the yield by 28.3 cwt/ha.  
The yield decreased by 106.9 cwt/ha when seeds  
of gourd were treated with sodium chloride. --  
E. A. Okorokova

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USSR / Cultivated Plants. Potatoes, Vegetables, Melons. M-2

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6290

Author : Zelenova, I. N.

Inst : Not given

Title : Additional Pollination of Gourd

Orig Pub : S.-kh. Povolozh'ya, 1958, No 7, 61-62

Abstract : No abstract given

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BULGARIA / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6291

Author : Pavlov, K.; Nikolov, J.

Inst : Institute of Plant Cultivation of the Acad.  
Sci. BPR

Title : Study of the Root System of Some Fodder Plants  
in Bulgaria

Orig Pub : Z. Acker und Pflanzenbau, 1957, 104, No 2,  
204-214

Abstract : This is a review of experiments on the study  
of the effect of pure crops and cereal-leg-  
uminous grass mixtures on the yield of above-  
ground and root masses (down to a depth of  
30 cm), on the improvement of the structure  
and the increase of the fertility of the soil.

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BULGARIA / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6291

Their effect as preceding crops for winter wheat was also studied in experiments conducted during the last 5 - 6 years, mainly at the Institute of Plant Cultivation of the Acad. of Sci. BPR and at agricultural high schools in Sofia and Plovdiv. The effect of fertilizers on the yield of above-ground and root masses of perennial grass mixtures was also studied. The following grasses were experimented on singly and in mixtures as annual winter crops: red and white clovers, esparsette, alfalfa, smooth brome, timothy, rye grass, red top, rye, winter vetch, fodder peas, wheat, fescue grass (meadow and red), dew grass. Experiments were conducted on vetch,

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6291

oats, fodder pea and white vetch - as summer crops. -- M. S. Shalyt

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USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6294

Author : Pakhomova, L. M.

Inst : Acad. Sci. USSR, Siberian Branch

Title : Characteristics of the Water Content in  
Perennial Grasses

Orig Pub : Izv. Sibirsk. otd. AN USSR, 1958, No 1, 141-149

Abstract : Experiments were carried out at the botanical garden near Ufa with red clover, sickle alfalfa, sainfoin (Hungarian and Trans-Caucasian), white sweet clover (*Melilotus alba*) smooth and meadow brome, slender wheatgrass, *Roegneria fibrosa*, crested wheatgrass and *Agro-pyon umbricatum*. They were sowed without cover in the spring of 1953 and 1954. The content of water in leaves of perennial grasses

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6294

diminished until the end of the vegetation period. This process is related to the aging of plasmatic colloids in the tissues. Leaves of perennial leguminous grasses contain more water than those of cereals. Leaves of wild perennial grasses contain less water than those of cultivated ones. The perennial grasses are disposed in the following order, according to the content of water in their leaves: among the leguminous - sweet clover, Hungarian, hybrid and Trans-Caucasian sainfoin, red clover, alfalfa blue hybrid, sickle alfalfa; among the cereals: crested wheatgrass and *Agro-pyon umbricatum*, smooth brome, *Roegneria fibrosa* and slender wheatgrass. The water retaining capacity diminished

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6294

in the blooming phase in cereal perennial grasses and clover; it increased in sweet clover, sainfoin and alfalfa. The water retaining capacity of varieties and ecological types of red clover, hybrid and sickle alfalfa and smooth brome diminished with age. The author came to the conclusion that sweet clover, sainfoin, smooth brome and wheatgrass can be sown in dry steppe and forest-steppe regions of the republic; hybrid and sickle alfalfa can be sown in better irrigated and forest-steppe regions; red clover, slender wheatgrass and Roegneria fibrosa can be sown in properly irrigated forest steppe and forest regions. --  
E. F. Linnik

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USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6295

Author : Yakovenko, M. S.  
Inst : Sumy Agricultural Experimental Station  
Title : Mixed Sowings of Fodder Crops

Orig Pub : Kolgospnik Ukrainskii, 1958, No 3, 24-25

Abstract : The results of experiments carried out at the Sumy Agricultural-Experimental Station in 1957 on sowings of corn and sudan grass mixed with leguminous crops in order to obtain green fodder are given in this paper. The yield of the green mass was 325 cwt/ha including 5.6 cwt/ha of protein, when corn was sown according to the norm of 90 kg/ha. The yield was 258 and 8.3 cwt/ha, respectively, when 80 kg/ha corn and 60 kg/ha were sown. Data on the yields of green mass and protein, when other mixtures

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6295

were sown, are given. Recommendations concerning the sowing of mixture of crops, in order to obtain fodder with high protein contents, are given.

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USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6296

Author : Smirnova, R. S.  
Inst : Central Experimental Station VIUA  
Title : Experiments on Sowing Stubble in Moscow Oblast'

Orig Pub : Zhivotnovodstvo, 1957, No 7, 54-56

Abstract : The yield of fodder cabbage sown over stubble was 378.6; for leguminous-cereal mixture (winter rye, oats, winter and summer vetch) 166 and 151.2 cwt/ha for sunflowers in the sector of perennial grasses, plowed after the first harvest, in comparison with the yield of perennial grasses belonging to the second harvest (control). These experiments were carried out at the Central Experimental Station of the All-Union Fertilizer and Soil

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6296

Science Institute in the southern part of Moskovskaya Oblast'. Turnips and leguminous cereal mixtures sown over stubble produced a yield of 161 and 382 cwt/ha, respectively, on a sector, where a vetch-oat mixture, which had been sown early, was used for green fodder. White mustard and buckwheat harvested after rye in order to produce green fodder produced a yield of green mass of 200.8 and 340.4 cwt/ha and 5.1 and 17.0 cwt/ha of grain. The yield of mustard and of leguminous-cereal mixtures was respectively 176.2 and 42.2 cwt/ha, when they were sown after harvesting winter rye for grain. -- B. T. Konik

Card 2/2

USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6297

Author : Gadzhieva, Kh. A.  
Inst : Dagestan Sci.-Res. Agricultural Institute  
Title : The Effect of Fertilizers on the Yield of Crops Grown Over Stubble in Dagestan

Orig Pub : S.-kh. Sev. Kavkaza, 1958, No 7, 21-22

Abstract : The introduction of  $N_{30}P_{30}K_{30}$ , of  $N_{60}P_{60}K_{60}$  and of manure (10 t/ha) increased the yield of the green mass of Sudan grass, Krasnodarskiy variety by 24 - 34%. For Minnesota - 13 extra corn the increase was 26 - 39%. The increase of dry mass in Sudan grass and corn was respectively, 30 - 44 and 25 - 54%. These experiments were carried out at the Dagestan Scientific-Research Agricultural Institute on

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USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6297

soils poor in Ca, P and humus and characterized by their mechanical composition.

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GDR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6298

Author : Bartels, A.

Inst : Rostock Scient.-Res. Agricultural Institute

Title : The Effect of Soil Cultivation on the Growth  
of Intermediate Crops

Orig Pub : Mitshurinbewegung, 1957, 6, No 10, 446-451

Abstract : The success of intermediate crops is determined not only by weather conditions but by preceding crops (time of sowing, yielding capacity, selection of crops or mixtures) as well as by soil cultivation, according to the data collected by the Rostock (GDR) Scientific Research Agricultural Institute. Examples of various methods of soil cultivation for sunflower, peas, mixture of leguminous, corn and others are given.

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USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6299

Author : Andreyev, V.

Inst : Not given

Title : Contribution to the Problem of Distribution  
of the Main Groups of Silage According to the  
Zones of Azerbaydzhan

Orig Pub : Sots. s.-kh. Azerbaydzhana, 1958, No 4, 46-50

Abstract : No abstract given

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HUNGARY / Cultivated Plants. Fodder Grasses and Root M-3  
Crops.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6304

Author : Weiser, Istvan

Inst : Institute of Animal Husbandry and Fodder  
Extraction

Title : The Best Utilization of Alfalfa and Red Clover  
for Fodder

Orig Pub : Magyar mezőgazd., 1957, 12, No 10, 12-13

Abstract : Alfalfa must be mowed at the beginning of  
the blooming period. Red clover should be  
mowed during the period of mass blooming,  
according to the data collected by the  
Institute of Animal Husbandry and Fodder  
Extraction (Hungary). It is necessary to add  
formic acid or molasses during the ensilage

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HUNGARY / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6304

of alfalfa and red clover, in order to improve lactic fermentation. -- F. Yu. Grabar'

Card 2/2

BULGARIA / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6306

Author : Maslinkov, Mikhail  
Inst : Agricultural Institute "Kolarov" Plovdiv  
Title : Some Problems of Alfalfa Seed Cultivation

Orig Pub : Selskostop. mis"l, 1958, No 2, 119-126

Abstract : Alfalfa cultivation practices for the purpose of producing seeds, which are based on data collected at the Agricultural Institute "V. Kolarov" in Plovdiv (Bulgaria), are given in this paper. Data, collected at the Institutes "Maritsa" and "V. Kolarov" on the yield of alfalfa seeds harvested after mowing at various times and with the help of various fertilization methods are also given.

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BULGARIA / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6306

3.2 cwt/ha of seeds were obtained on the experimental field of the "Maritsa" Institute in 1955-1956, when the harvest took place after the second mowing in comparison with an average yield of 0.4 cwt/ha for the country in 1951-1956.

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USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6307

Author : Mironenko, A. V.; Kazanovich, Ya. N.  
Inst : Biological Institute Bielor. Acad. of Sciences  
Title : Contribution to the Problem of the Characteristics of Protein Metabolism in the Process of the Growth and Development of Lupine

Orig Pub : Byul. In-ta Biol. AN BSSR, 1956 (1957), vyp 2,  
157-160

Abstract : Research, conducted at the Institute of Biology, Bielor. Acad. of Sciences shows that the percentage of N in all protein fractions diminishes gradually in leaves of low alkaloid lupine (No 88 variety) during the process of vegetation. At the same time, the percentage of general and albuminous N in the high

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6307

alkaloid lupine (No 484 variety) did not vary perceptibly. Salt soluble fractions of N prevail in the albumin of seeds of low alkaloid lupine. The prevailing fraction in the high alkaloid variety is water soluble. When lupine is affected by verticillium disease, the content of general and of protein N, in particular, in the plant diminishes and the percentage of non-protein N increases. --  
N. N. Sokolov

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USSR / Cultivated Plants. Fodder Grasses and Root Crops.M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6308

Author : Volynskaya, U. M.  
Inst : Ukrainian Agricultural Academy  
Title : The Effect of Some Forms of Potassium Fertilizers  
on the Yield of Grain and on the Quality of  
Fodder Lupine

Orig Pub : Udobreniye i urozhay, 1958, No 4, 10-12

Abstract : Varieties of potassium fertilizers increased  
the yield of grain of fodder lupine by 20 -  
30% on the average. The yield was 11.3 cwt/ha  
with phosphorous fertilizers, according to  
the experiments carried out at the Ukrainian  
Agricultural Academy. K<sub>c</sub>, kalimag and the  
combination of half doses of K<sub>x</sub> and K<sub>c</sub>  
contributed to the accumulation of a great

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6308

Author

quantity of protein and fat in the grain and hay. Together, they diminished the content of alkaloids more than any other variety of fertilizers. K<sub>x</sub>, kalimag and kainite contributed to the accumulation of ashes in hay more than anything else. -- V. V. Prokoshev

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USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6309

Author : Lyapin, G. S.

Inst : Not given

Title : Increased Utilization of Potassium Fertilizers Under Lupine

Orig Pub : Zemledeliye, 1958, No 3, 17-19

Abstract : This is a generalization based on data accumulated over a period of 40 years on the effectiveness of potassium fertilizers on annual lupine in various zones of the USSR. In almost all the experiments, potassium fertilizers increased the yield of grain of lupine by 2 - 4 cwt/ha or more. The author relates the effective action of single potassium fertilization on lupine to the

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6309

reduction of the vegetation period which it causes, the increase in activity of tuber bacteria and increased resistance to unfavorable weather conditions. At the same time it is noted, that K increases the content of albumin in the seeds of lupine as well as the yield of subsequent crops. By using experimental data the author determined that 1 kg/ha of the active substance in potassium fertilizers can produce 6 kg of lupine seeds and 165 kg of green mass. -- V. V. Prokoshev

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USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6310

Author : Grebennikova, L. P.  
Inst : Zhitomir Agricultural Institute  
Title : The Effect of the Time of Top Dressing on the Yield of Seeds of Fodder Lupine

Orig Pub : Byul. sil'skogospod. inform. Zhitomir. obl. vig. t-va dlya poshir. polit. ta nauk. znan'. 1957, No 4, 79-80

Abstract : The experiment was carried out at the training-experimental farm Osniki of the Zhitomir Agricultural Institute on turf-podzolic sandy loam in 1955-1956. The sowing was effected in three lined rows at intervals of 13 - 15 cm between lines and 45 cm between rows. Oats was the preceding crop. Phosphorite

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6310

fertilizer (30 kg P<sub>2</sub>O<sub>5</sub>), P<sub>s</sub> (30 kg P<sub>2</sub>O<sub>5</sub>) and K<sub>k</sub> (45 kg K<sub>2</sub>O) were introduced at the time of fall plowing. P<sub>s</sub> (30 kg P<sub>2</sub>O<sub>5</sub>) and K<sub>k</sub> (30 kg K<sub>2</sub>O) were used as top dressing. The yield of seeds was 14 cwt/ha and the pure weight of seeds was 140 g when the top dressing was introduced during the phase when 2 - 3 leaves have appeared and when the formation of vegetative cone takes place. The yield and the pure weight of seeds were respectively 18.5 cwt/ha and 140 g, when the top dressing was introduced at the beginning of the period of differentiation of the vegetative cone and the first generative tubercles are formed. Top dressing during the budding phase produced respectively 15.4 and 149; in the blooming

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6310

phase, the yield was 14.7 and 160. The yield in the control, without top dressing was 10.5 cwt/ha and the pure weight of the seeds was 130 g. The second variant of the experiment must be considered as the best time for applying top dressing. -- E. M. Tsvetayeva

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USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6311

Author : Fridental', S. M.  
Inst : Ukr. Scient.-Res. Inst. of Plant Cultiv.  
Select. and Genetics  
Title : The Selection of Common Vetch

Orig Pub : Byul. Ukr. n.-i. in-ta rastenievodstva,  
selekto. i genet., 1958, No 2, 17-18

Abstract : Different forms and varieties of peas were studied at the institute in 1955-1956 in order to select early ripening fodder varieties with fine seeds. The weight of 1000 seeds of various varieties of vetch in the institute's collection fluctuated between 100 and 448 g during 1956. Vetch of the Khar'kovskiy Bl variety is ready for mowing 58 - 70 days after

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6311

sprouting; its height reaches 1.5 - 2 m. The Khar'kovskiy 131 variety was grown at the Khar'kov Selection Station during 1955. It was a favorable year for late ripening varieties. When mixed with oats it produced 309 cwt/ha of green mass; the yield was 370 cwt/ha when it was sown alone. The yield of grain reached 42.5 cwt/ha during the years when there was sufficient precipitation. The coefficient of propagation of seeds was 85, when sowing was done in broad rows (39 cm); it was 64 when the distance between rows was 26 cm wide. -- E. A. Okorokova

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USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6312

Author : Nekrasova, L. F.  
Inst : Ukrainian Scient.-Res. Institute of Irrigated  
Agriculture  
Title : Common Vetch in Arid Steppes

Orig Pub : Kolkospnik Ukrainskii, 1958, No 3, 18

Abstract : Data, compiled by the Ukrainian Sci.-Res. Institute of Irrigated Agriculture on the yielding capacity of vetch varieties cultivated for green mass in the Southern Ukraine during 1957, is given in this paper. Of all tested varieties, the greatest yield of green mass - 195 cwt/ha (42.9 cwt/ha of hay) - was produced by the Uladovskiy 387 variety. Recommendations on cultivation of vetch for hay are given.

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USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6313

Author : Bolonkina, K.  
Inst : All-Union Institute of Fodders  
Title : The Field Pea as a Valuable Crop in the Northern Districts

Orig Pub : Nauka i peredov. opyt v s.-kh., 1958, No 3,  
42-43

Abstract : The field pea of the Alexandrovskaya 231 variety mixed with oats and white mustard in various proportions was sown in the All-Union Institute of Fodders in 1956-1957. The yield of field peas was higher when it was sown alone, but the plants lodged and this made mechanized harvesting difficult. A yield of peas of 33 cwt/ha (including 15 cwt of field

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pea) and 40 cwt/ha of straw was obtained in 1957, when a mixture of 90 kg/ha of peas and 133 kg of oats was sown. The norm of sowing of 70 kg/ha of field pea and 150 kg/ha of oats was found to be best at the Ust'-Kulomskiy variety testing section (KomiASSR). Good results were obtained by sowing 146 kg/ha of field pea and 9 - 12 kg of mustard in order to obtain grain. The grass did not lodge, the yield of grain of field peas was 14.4. For mustard the yield was 2.7 - 3.6 cwt/ha. The highest and the most stable yields are produced with the Alexandrovskaya 231, Falenskaya 42 and Spartanets field pea varieties. -- Ye. A. Okorokova

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USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6316

Author : Kim Don Be  
Inst : Moscow University  
Title : Foxtail Millet in Relation to the Reaction of the Medium

Orig Pub : Vestn. Mosk. un-ta, Ser. biol. pochvoved., geol.,  
geogr., 1957, No 2, 111-117

Abstract : Vegetation experiments were conducted in sandy crops with various medium reactions: weakly alkaline medium (pH 7.5), neutral (pH ~ 6.5), weakly acid (pH 5.5), strongly acid (pH 4.5). These experiments were conducted by the Department of Agricultural Chemistry of Moscow State University in 1954 and 1955. The reaction of the medium was established every other day

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6316

during the whole vegetation period by adding H<sub>2</sub>SO<sub>4</sub> and NaOH in drip pans. Foxtail millet had the greatest sensitivity to the acid reaction in the initial period after sprouting (~30 days). The germination with a neutral reaction was 65%; the number of lost plants was 0. At the same time the results were, respectively, 55 and 22% with an acid reaction. Weakly acid reactions are as favorable to plants as neutral ones. Weakly alkaline reaction had an unfavorable influence only in the initial period. The acid reaction caused a disturbance in the carbohydrate and protein metabolism; it brought about an accumulation of non protein N in foxtail millet; the content of Ca diminished whereas the content of P and K increased. --  
O. V. Yakushkina

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USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6317

Author : Goncharov, P. L.

Inst : Not given

Title : Agrobiological Peculiarities of Mohar and Foxtail Millet in Omskaya Oblast'

Orig Pub : Zemledeliye, 1957, No 3, 30-34

Abstract : Experiments on the cultivation of mohar and foxtail millet show that they are capable of giving high yields of hay and seeds even in dry years. In addition, they withstand spring frosts well and suffer considerably from fall frost. The above surface part of the plants perished totally as a result of fall frost during 1955 (-1.7°). The seeds can keep their germination capacity rather well if they are

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6317

stored, even for a long time, in a dry and aerated space. MS-1, Barkhatnyy 83, Krasnokut-skiy 461, Karagandinskiy 242 are the best mohar varieties for the Omskaya Oblast'; Nemchinovskaya 6 and Sibirskaya 56 are the best foxtail millet varieties. Omskiy 10 mohar variety and Novosibirskaya 1 - foxtail millet varieties are of interest to the Northern regions. In the experiments conducted at the Siberian Scientific Research Agricultural Institute on the study of the time of sowing the highest yield of hay were obtained when the sowing took place during the third ten day period in May. The action of MCPA herbicide was studied on mohar sowings. Treatment with 1150 g of the preparation per 1 ha in the

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6317

tillering phase contributed to the elimination of thistle, orache, wild buckwheat, hemp nettle and amaranth. -- G. N. Chernov

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USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6318

Author : Chumina, O. T.  
Inst : Acad. Sci. Kaz SSR  
Title : The Indicators of Water Supply in Annual  
Fodder Crops in Connection with Their Develop-  
ment and the Conditions of Their Cultivation

Orig Pub : Izv. AN Kaz SSR, Ser. botan. i pochvoved.,  
1958, vyp 1, 49-56

Abstract : The results of experiments with foxtail millet  
(Alma-Ata 396 variety), summer vetch (Bogoro-  
ditskaya 800) and oats (Zolotoy dozhd'),  
carried out by Academy of Sciences Kazakh SSR  
in Kaskelenskiy Rayon of Alma-Atinskaya Oblast'  
in 1954-1956, are given in this paper. The  
critical amounts of concentration of cell  
fluid (refractometer readings) for foxtail

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6318

millet at the beginning and at the end of  
shooting, at the beginning of ear formation,  
and during the grain ripening period were  
established. Data on the variation in the  
water supply of plants according to their  
phase of development and in relation to their  
conditions of growth are given. Bibl. 22  
titles. -- V. S. Shmal'ko

Card 2/2

USSR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6319

Author : Gura, B.

Inst : Moscow Agricult. Inst. im. K. A. Timiryazev

Title : Contribution to the Problem of the Biology of  
Blooming of Foxtail Millet in Odesskaya Oblast'

Orig Pub : Sb. Stud. Nauchno-Issled. Rabot Mosk. s.-kh.  
akad. im. K. A. Timiryazev, 1957 (1958), vyp 7,  
35-40

Abstract : It was established at the Selection Genetic  
Institute in 1955 that the maximum intensity  
of blooming of foxtail millet is observed when  
the relative humidity of the air remained under  
70% and the temperature was 16 - 18°. The  
blooming intensity diminishes at 20°. The  
foxtail millet flowers stayed open for 1 - 4

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6319

hours, depending on exterior conditions.  
The duration of blooming is 15 - 16 days.

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6320

Author : Bogdan, A. I.  
Inst : Ukr. Scient.-Res. Inst. of Plant Cultiv.,  
Selection and Genetics

Title : The Quality of Seeds of High Rye Grass De-  
pending on the Time and Means of Harvesting

Orig Pub : Byul. Ukr. n.-i. in-ta rastenievodstva, selekts.  
i genet., 1958, No 2, 30-32

Abstract : The experiments carried out in 1954-1955,  
showed that the seeds harvested during the  
period of seed vessel formation had a low rate  
of germination (4-27%); germination reached  
62 - 92% when the seeds were harvested during  
the waxy stage, the percentage of germination  
was 26 - 66% during the milky stage. A greater

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6320

percentage of germination was observed in  
seeds treated after drying in sheaves. Germi-  
nation was much lower when the threshing was  
done immediately after harvesting.

Card 2/2

GDR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6323

Author : Hollstein, H.  
Inst : Jena Agricultural Scient.-Res. Institute  
Title : Early Spring Experiments in Fields with Winter  
Oil Crops Damaged During Wintering

Orig Pub : Mitschurinbewegung, 1958, 7, No 5, 198-203

Abstract : It was established at the Jena Agricultural Scientific Research Institute that the plants continue to grow even when the rosette leaves die after hibernation but when the medulla and the roots in winter rape and winter cress are healthy and undamaged. A harvest can be obtained when proper care and fertilization are applied. In order to obtain a high yield of winter crops it is necessary to apply nitrogen

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GDR / Cultivated Plants. Fodder Grasses and Root Crops. M-3

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6323

fertilizers in the early spring. The average yield of seeds in 6 experiments carried out in 1955 was 24.3 cwt/ha, when 60 kg/ha of the active agent of N was introduced, and 27.0 cwt/ha when 120 kg of N was introduced. It is also recommended to carry out fall and early spring harrowing of the sowings. The yield of seeds was on the average for three years 1954-1956 (9 experiments): without harrowing 18.3 cwt/ha, with early spring harrowing - 20.7 cwt/ha and with fall and early spring harrowing - 21.5 cwt/ha. --  
E. M. Tsvetayeva

Card 2/2

CZECHOSLOVAKIA / Cultivated Plants. Fodder Grasses and M-3  
Root Crops.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6324

Author : Benc, Stanislav  
Inst : Semchitsa Scient.-Research Institute  
Title : The Selection of Mangel-Wurzel Varieties

Orig Pub : Za vysokom urodu, 1957, 5, No 4, 77-78

Abstract : Semchitsa (Czechoslovakia) Scientific Research Institute divides mangel-wurzel according to its productivity and starch content in 3 basic groups: coarse, semi-saccharine and saccharine. The coarse variety occupies by its yield of the fodder mass the first place, but it takes the last place by its starch content. Three [sic!] coarse mangel-wurzel varieties are cultivated: Kostelets, Barres, Yellow Unicum and Buchan

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CZECHOSLOVAKIA / Cultivated Plants. Fodder Grasses and M-3  
Root Crops.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6324

Yellow Valets. The two of the last named varieties exceed the half saccharine one by 10 - 20% in weight. Coarse mangel-wurzel grows almost at the surface of the earth; this circumstance facilitates the harvesting of the crop, but it deteriorates in storage. The yielding capacity of semi-saccharine mangel-wurzel is less than that of the coarse varieties. It contains more nutrition substances and produces more haulm. It requires a deeper soil cultivation. Red semi-saccharine mangel-wurzel contains the largest amount of starch. Saccharine mangel-wurzel has the greatest content of starch in comparison with other varieties, but the weight of its edible

Card 2/3

CZECHOSLOVAKIA / Cultivated Plants. Fodder Grasses and M-3  
Root Crops.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6324

root is the smallest, although it produces more haulm and dry matter by 15 - 20%. The harvesting is difficult because the edible root lies deep under the surface of the earth.

-- E. A. Parshina

Card 3/3

USSR / Cultivated Plants. Commercial, Oleaceous, M-4  
Sugar Bearing.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6328

Author : Ryzhov, S. N.; Dorman, I. A.

Inst : Not given

Title : Production Capacity of Irrigated Soils of Middle Asia with Cotton as a Single Crop and in Crop Rotation

Orig Pub : Pochvovedeniye, 1956, No 9, 34-36

Abstract : The cultivation of cotton as a single crop with utilization of mineral fertilizer produced a yield of cotton wool of about 34 cwt/ha, and in crop rotations with alfalfa with the application of fertilizers the yield was 42 - 43 cwt/ha. These experiments took place on typical Sierozem soils at the Ak-Kavak Station.

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USSR / Cultivated Plants. Commercial, Oleaceous,  
Sugar Bearing.

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6328

Application of fertilizers in crop rotations with alfalfa on takyr-like soils at the Ioltan Station produced a yield of cotton wool of 26 - 43 cwt/ha. When cotton was sown as a single crop with the introduction of a fertilizer, the yield was 16 - 21 cwt/ha. The increment in the yield of cotton wool on dark Sierozem soils near the city of Chimkent was 1.3 - 1.6 cwt/ha in comparison with the case, when cotton was sown as a single crop. The content of humus, of N and of P in the soil increases appreciably, when crop rotation is applied. A tendency toward an increase in the cotton yield with every new rotation is observed. -- S. A. Nikitin

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USSR / Cultivated Plants. Commercial, Oleaceous,  
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6329

Author : Maksumov, A. N.  
Inst : Acad. of Sci. Tadzh SSR  
Title : An Experiment in Cotton Cultivation on Non-Irrigated Land with a Sufficient Amount of Precipitation in Tadzhikistan

Orig Pub : Izv. Otd. yestestv. nauk AN TadzhSSR, 1957,  
No 21, 57-87

Abstract : Experiments on sowing cotton on non-irrigated land were carried out in the foothills of the Gissar Valley at the Tadzhik. State Selection Station in 1951-1955. For this period the yearly average of precipitation was 520-650 mm with 35.5 for the summer months. The average

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USSR / Cultivated Plants. Commercial, Oleaceous,  
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6329

of the daily temperature was 26.7°. The medium and the late ripening varieties such as 108-f, C-460, C-1225 and the fine fibered 5904-I, and not the early ripening ones, are the most adaptable varieties suited for cultivation on unirrigated plots which are provided with sufficient amount of rainfall. The vegetation period is shortened by 15 - 33 days (depending on varieties) as a result of cultivation of cotton on the unirrigated land. The height of the plant increases. The growing of the first sympodial branch starts 1 - 2 nodes lower, the accumulation of fruit organs increases as well as the number of surviving bolls. Instead of a continuous blooming, two sharply

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USSR / Cultivated Plants. Commercial, Oleaceous,  
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6329

delimited periods of blooming are observed - one, before the start of the drought (August) and the other during the late fall. The weight of the cotton wool, of the boll and the absolute weight of seeds gradually increase. As a result of acclimatization, the technological qualities of the fiber improve. --  
B. L. Klyachko-Gurvich

Card 3/3

USSR / Cultivated Plants. Commercial, Oleaceous,  
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6331

Author : Safarov, N. A.  
Inst : Azerbaijani Agricultural Institute  
Title : The Effect of Sowing Methods on Fruit Bearing  
of Various Cotton Varieties

Orig Pub : Tr. Azerb. s.-kh. in-ta, 1957, 4, 53-66

Abstract : Experiments on the study of the fruit bearing  
of cotton varieties 1298 and 2018/2 with 6  
variants of plant disposition: 60 x 60 x 3,  
60 x 45 x 3, 50 x 50 x 2, 45 x 45 x 1,  
45 x 45 x 3, 70 x 15 x 1 were carried out at  
the training farm (uchkhoz) of the Azerbaijani  
Agricultural Institute. The 1298 variety had  
a higher fruit bearing potential. The greatest

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USSR / Cultivated Plants. Commercial, Oleaceous,  
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6331

number of fruit-elements is formed in both  
varieties with the square-pocket sowing.  
Sowing, according to the scheme 50 x 50 x 2,  
produces the least percentage of dropping of  
bolls. The size of bolls varies greatly  
at the 2018/2 variety depending on the disposi-  
tion of plants, but no great difference is  
noticed in the size of fruit organs in the 1298  
variety with any disposition of plants. The  
highest yield in both varieties was obtained  
with the scheme 50 x 50 x 2. -- B. L. Klyachko-  
Gurvich

Card 2/2

USSR / Cultivated Plants. Commercial, Oleaceous,  
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6332

Author : Kuliev, A. M.

Inst : Acad. of Sciences UzSSR

Title : Cross Pollination of Cotton of the Azerbaiydzhan  
Varieties

Orig Pub : V sb.: Ref. nauchno-izsled. rabot po  
khlopkovodstvu. Tashkent, AN Uz SSR, 9-21

Abstract : Data on gradual decline of technological  
qualities of the cotton variety 1298, region-  
alized in the Azerbaiydzhan SSR, are given.  
The author explains it by the circumstance that  
self pollination is the prevailing biological  
particularity of the variety 1298. It is  
recommended, when introducing new cotton

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Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6332

varieties, to take into account the degree of  
cross pollination, which plays an important  
role in the increase of productivity. The  
study of new prospective for Azerbaiydzhan  
varieties (2421, 2018/2, C-1472, 2523) leads  
to the conclusion that the majority of these,  
along with self pollination for 2 - 3 hours  
before the opening of flowers, are also cap-  
able for cross pollination for 10 - 40%. It  
is recommended for elite farms and seed culti-  
vating kolkhozes, in order to obtain the most  
viable plants, to utilize cotton in the middle  
layers and the bolls of middle sympodia,  
having superior qualities. It is necessary to  
have one family of bees every 2 - 3 ha of

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Sugar Bearing.

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6332

sowings in order to provide for a cross  
pollination of cotton. -- B. L. Klyachko-  
Gurvich

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USSR / Cultivated Plants. Commercial, Oleaceous,  
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6333

Author : Khasanov, M.

Inst : Not given

Title : The Determination of the Time for Irrigating  
Cotton Growing with Narrow Spaces Between Rows

Orig Pub : Sots. s.-kh. Uzbekistana, 1957, No 7, 10-16

Abstract : A field experiment was carried out at the  
Ak-Kavak Agrotechnical Station of the All-  
Union Cotton Scientific Research Institute  
in order to compare the effectiveness of  
various methods of determination of the time  
of cotton irrigating. The following methods  
were tested: according to the soil moisture  
70 - 70 - 60% and 65 - 70 - 60%, according to

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USSR / Cultivated Plants. Commercial, Oleaceous,  
Sugar Bearing. M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6333

the exterior signs of the state of the plant and according to the sum of the medium daily temperatures during the period of blooming-fruit bearing. The spraying variant, according to the scheme 2-5-1, served as control. The experiment was carried out with cotton 108-f variety with the two following arrangements 60 x 50 x 3 (100,000 plants on 1 ha) and 50 x 50 x 3 (120,000 plants on 1 ha). It was established that the lowest average daily water rate and smaller irrigation norm were obtained with sprayings, according to the moisture of the soil and to the sum of the daily average temperatures. The number of sprayings was one less with these methods,

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6333

than with the others. Square-pocket plant distribution according to the scheme 50 x 50 x 3 produced a higher growth of the main stem in all variants of the experiment and a higher yield of cotton-wool than with the scheme 60 x 50 x 3. The highest yield was obtained with the irrigation method using external indicators and with soil moisture 70 - 70 - 60%, regardless of the arrangement.  
-- B. L. Klyachko-Gurvich

Card 3/3

USSR / Cultivated Plants. Commercial, Oleaceous, M-4  
Sugar Bearing.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6334

Author : Malov, N. I.  
Inst : Azerb. Agricultural Institute  
Title : Bases of Sorting, Calibrating and Sowing Cotton  
Seeds with a Given Number of Seeds Per Hill

Orig Pub : Tr. Azerb. s.-kh. in-ta, 1957, 4, 3-18

Abstract : The full effectiveness of sorting and calibration of seeds is reached only after their complete denudation. The most expedient method for that is the mechanized removal of the seed down with subsequent treatment with a strong solution of sulphuric acid. It is recommended to sort cotton seeds according to their specific weight and their size, and their calibration

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USSR / Cultivated Plants. Commercial, Oleaceous, M-4  
Sugar Bearing.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6334

according to the coordinates of thickness, width and length. The germination and the growth energy of seeds increase when the sowing is carried out by sorted and calibrated seeds. At the same time, the need of presowing treatment of the seeds with a fungicide to prevent gummosis disappears, the resistance of cotton bushes to wilt, to root rot and gummosis increases, the variety qualities improve, greater economy in the norms of sowing is reached and it becomes possible to sow denuded and assorted seeds by common grain and corn sowing machines SKg-6. -- B. L. Klyachko-Gurvich

Card 2/2

USSR / Cultivated Plants. Commercial, Oleaceous,  
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6335

Author : Naaber, L. Kh.  
Inst : Acad. Sci. Uzb SSR  
Title : Physiological Processes in Cotton Plants  
During Defoliation

Orig Pub : V sb.: Materialy mezhresp. soveshchaniya po  
koordinatsii nauchno-izsled. rabot po  
khlopkovodstvu, 1957 g., Tashkent, AN Uzb SSR,  
1957, 235-239

Abstract : Individual leaves were treated with chemical  
preparations by immersion or vacuum-infiltration. The whole plant was also sprayed in  
the case of the 108-f variety in the period  
when 2 - 4 bolls open. Phenylthiourea and

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Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6335

sodium diethyldithiocarbamate (0.5% solutions),  
dicarboxylic acids and their derivatives-  
fumaric and maleic acids, hydrazide of maleic  
acid, diethyl ethers of fumaric and maleic  
acids (0.02% solutions) did not display de-  
foliation capacities. Calcium cyanamide  
(2 and 5%) and sodium cyanamide (0.5 and 1.0%),  
methylendotal (0.2%) as well as thiourea  
(0.5%) acted on direct contact, but endotal  
(0.2%) had an over-all effect. It acted on  
all leaves situated above the ones which  
were treated directly. The defoliation agents  
caused dehydration of cells. This process  
grows with the increase in concentration. The  
greatest dehydration was caused by cyanamide

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Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6335

salts, magnesium chlorate and endotal. Methyl-endotal stimulated absorption of CO<sub>2</sub> without lowering the breathing intensity in view of the activation of the oxydizing system; other defoliation agents impede the photosynthesis and breathing. An exception was found in thiourea, which activated respiration through the catalase system, after having inhibited its first phase. -- B. E. Kravtsova

Card 3/3

USSR / Cultivated Plants. Commercial, Oleaceous,  
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6336

Author : Gyul'akhmedov, A. N.  
Inst : Azerbaydzhan Scient.-Res. Institute of Cotton  
Cultivation  
Title : The Effect of Uranium on the Development and  
Productivity of Cotton Plants

Orig Pub : Izv. AN AzerbSSR, 1957, No 9, 73-82

Abstract : Data is given on a study conducted at the Azerbaydzhan Scientific Research Institute of Cotton Cultivation on the introduction of uranium nitrate in doses of 200, 500 and 1000 mg per vessel in vegetation experiments and 0.5 and 1.5 kg/ha in the fields during the planting No 114 cotton variety. The process

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Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6336

of nitrification proceeded at a moderate rhythm and with increased intensity; the usual damping in certain vegetation periods of the cotton plant was avoided when 200 and 500 mg were introduced. However, the nitrification process was impeded when 1000 mg were introduced in a vessel. Uranium inhibits growth in the initial phase of development of the cotton plant, but it stimulates it during the fruit bearing and ripening phases, increasing the number of fruit buds by 14 - 17% in comparison with the control. It also increases the yield of cotton wool (in the field experiments) by 1.7 - 4.7 cwt/ha. Uranium prolongs the budding and blooming phases in the cotton

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USSR / Cultivated Plants. Commercial, Oleaceous,  
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6336

plant to some extent. The contents of proteins and of raw fat in seeds increases under the action of uranium. -- B. L. Klyachko-Gurvich

Card 3/3

USSR / Cultivated Plants. Commercial, Oleaceous, M-4  
Sugar Bearing.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6337

Author : Askochenskiy, A. N.

Inst : Not given

Title : Irrigation as a Basis of Development of Cotton  
Cultivation

Orig Pub : Vestn. s.-kh. nauki, 1958, 99-107

Abstract : No abstract given

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KOREA/ Cultivated Plants. Commercial, Oleaceous, M-4  
Sugar Bearing.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6338

Author : Not given

Inst : Not given

Title : Cotton Plants

Orig Pub : Sondin Nonbo, 1958, No 1, 36-41

Abstract : No abstract given

Card 1/1

USSR / Cultivated Plants. Commercial, Oleaceous,  
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6339

Author : Rudnev, N. V.

Inst : Bashkir Agricultural Institute

Title : Contribution to the Problem of the Study  
of Wild Hemp in Order to Improve Cultivated  
Hemp on a Selective Basis

Orig Pub : Tr. Bashkisk. s.-kh. in-ta, 1957, 8, No 2,  
67-74

Abstract : A study of the biology of the wild hemp showed  
that it is substantially different from the  
cultivated variety. The seeds of cultivated  
hemp lose all their germinating capacity,  
when they remain in the soil at a depth of  
over 15 cm for two years. In the case of wild

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Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6339

hemp, this capacity is preserved by 26 - 48%  
of the seeds. After harvesting, the  
ripening period in the seeds of wild hemp is  
much longer than in those of the cultivated  
hemp. The germinating capacity of the seeds  
of wild hemp continues to exist after 5 years  
of storage. However, the seeds of cultivated  
hemp lose this capacity after 3 years. The  
stigma's period of receptivity to pollen  
and the conservation of fecundity is almost  
twice as long in the case of the wild hemp  
as in the cultivated type. Wild hemp produces  
10 - 20% more seeds and 10 - 13% more fiber  
than the cultivated variety. It is more  
resistant to hemp flea-beetles (*Psylliodes*

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USSR / Cultivated Plants. Commercial, Oleaceous,  
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6339

attenuata) and utilizes the supply of nutrient substances in the soil better. The hybrids of wild and cultivated hemp surpass the parental varieties with regard to the yield of seeds and of fiber. -- G. Yu. Dinesman

Card 3/3

USSR / Cultivated Plants. Commercial, Oleaceous,  
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6341

Author : Nevinnykh, V. A.  
Inst : All-Union Scient.-Res. Institute of Rast  
Crops

Title : Hybridization and Selection of Gambo Hemp

Orig Pub : Tr. Vses. n.-i. in-ta lub. kul'tur, 1957,  
vyp 22, 179-205

Abstract : Cross breeding of forms of gambo hemp of varying origins and different biological and ecological features causes heterosis in the first and subsequent generations. The maximum manifestation of heterosis is observed in the cross breeding of very early ripening or early ripening forms with very late

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Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6341

ripening ones. Late ripening is a dominant feature in  $F_1$ . Early ripening gambo hemp varieties, which were characterized by the rapid initial growth of their plants, were separated from the hybrid material. This feature appeared to be recessive. A gambo hemp variety, Kubanskiy 333, which is highly productive and has a good yield of fiber, was obtained as a result of selection from a combination exhibiting heterosis. To eliminate the prickliness of gambo hemp, which is its dominant feature, hybridization with related species of the genus Hibiscus (furcaria section), which has almost no prickles, was carried out. -- S. Ya. Krayevoy

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USSR / Cultivated Plants. Commercial, Oleaceous,  
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6342

Author : Kondratenko, A.

Inst : Not given

Title : Mineral Fertilizers Used in the Cultivation  
of Gambo Hemp

Orig Pub : S.-kh. Kirgizii, 1956, No 5, 22-24

Abstract : The yield of stems and fiber of gambo hemp in crop rotation decreases in proportion to how far it is from the alfalfa layer, even when the field is fertilized with P and K. The introduction of N increases the yield. The ratio N : P : K increases from 0.5 : 1 : 0.75 to 1 : 1 : 0.75 (with a dose of P<sub>60</sub>) in proportion to how far gambo hemp is from the

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USSR / Cultivated Plants. Commercial, Oleaceous,  
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6342

alfalfa layer. The quality of fiber greatly diminishes when the whole dose of N is introduced into the top dressing. -- G. Yu. Dinesman

Card 2/2

POLAND / Cultivated Plants. Commercial, Oleaceous,  
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6344

Author : Dembinski, Felicjan  
Inst : Not given  
Title : Experiments on Cultivation of Oleaceous Plants  
(in Poland), Which Were Carried Out in 1950-1955  
Orig Pub : Wydawn. wlasne. Inst. uprawy, nawozenia i  
gleboznawstwa, 1957, No 61, 5-28

Abstract : Old and new oleaceous crops, cultivated in  
Poland were studied. It is best to sow  
winter rape during the period between August  
15th and 25th. Nitrogen fertilizers used  
in the cultivation of winter rape should be  
introduced on two separate occasions: in the  
fall (the smaller dose) and in the spring

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POLAND / Cultivated Plants. Commercial, Oleaceous, M-4  
Sugar Bearing.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6344

(the greatest portion of the required dose). The yield of seeds increased with the increase of the dose of N up to 175 kg/ha. Winter gold-of-pleasure, which has a high winter resistance, was selected for cultivation from a number of weeds. The best yield and the best quality of oil obtained from 16 summer oleaceous plants came from sunflowers and Ethiopian colewort (*Crambe abissinica*). Perilla, rocketsalad and lallemandia were found to be unfit for cultivation. Economical methods of harvesting sunflower and castor plants were developed. -- A. M. Smirnov

Card 2/2

HUNGARY / Cultivated Plants. Commercial, Oleaceous, M-4  
Sugar Bearing.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6345

Author : Yaky, Miklos

Inst : Not given

Title : The Study of Seeds of Various Species of  
Oleaceous and Other Plants

Orig Pub : Elelm ipar., 1958, 12, No 1-2, 25-28

Abstract : No abstract given

Card 1/1

USSR / Cultivated Plants. Commercial, Oleaceous, M-4  
Sugar Bearing.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6346

Author : Pustovoyt, V. S.

Inst : All-Union Scient.-Res. Institute of Oleaceous  
and Essential Oil Crops

Title : Selection and Seed Cultivation of Sunflowers

Orig Pub : V sb.: Kratkiy otchet o nauchno-izsled. rabote  
Vses. in-ta maslichn. i efiro-maslichn.  
kul'tur za 1956 g. Krasnodar, "Sov. Kuban'",  
1957, 9-20

Abstract : The sunflower varieties number 15659, 15636  
and others selected by the Institute took  
first place in the competitive variety trial  
in 1956 (city of Krasnodar). Oiliness had been  
calculated in absolutely dry seeds. The variety

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USSR / Cultivated Plants. Commercial, Oleaceous, M-4  
Sugar Bearing.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6346

number 16652 produced more oil than the best  
competitive varieties during the preliminary  
variety tests. Early ripening varieties with  
a high degree of oiliness were sorted out in  
the first year nursery. The oiliness calculated  
on absolutely dry seeds reached 52 - 53.6%  
in some high yielding numbers. In 1956  
certain numbers of intervariety hybrids proved  
themselves to be resistant to rust in  
addition to being highly productive. --  
O. P. Plyusnina

Card 2/2

USSR / Cultivated Plants. Commercial, Oleaceous,  
Sugar Bearing. M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6347

Author : Derishchev, M. G.  
Inst : All-Union Scient. Res. Inst. of Oleaceous and  
Essential Oil Crops  
Title : Selection and Seed Cultivation of Sunflowers  
in the Altay Kray

Orig Pub : V sb.: Kratkiy otchet o nauchno-izsled. rabote  
Vses. n.-i., in-ta maslichn. i efiro-maslichn.  
kul'tur za 1956 g. Krasnodar, "Sov. Kuban'",  
1957, 31-35

Abstract : The selection experiments with sunflowers  
started in 1956 in the arid zone of the Altay  
Kray (Kulundinskaya Steppe). The 8392 variety  
of VNIIIMK (All-Union Scient. Res. Inst. Oleac.

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Sugar Bearing. M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6347

Crops) which took the first place because  
of its yield of seeds (7.2 cwt/ha) and oil  
(2.47 cwt/ha), showed itself as a good  
prospect for the steppe part of Altay in  
the competitive variety tests in 1956. Many  
numbers with a shorter vegetation period  
than the 8883 variety were found in the nursery  
dedicated to the evaluation of the descendants  
of the 8883 variety. Among them, No 291  
which has a vegetation period, shorter by 12  
days than the 8883 variety, surpassed the  
latter by 25% in yield. -- O. P. Plyusnina

Card 2/2

POLAND / Cultivated Plants. Commercial, Oleaceous,  
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6348

Author : Horodyski, Andrzej; Jablonski, Miron;  
Kielczewski, Bogdan

Inst : Not given  
Title : The Effect of the Sowing Density on the Yield  
of Seeds and the Oiliness of Sunflowers with  
Varying Degrees of Fertilization

Orig Pub : Wydawn. wlasne, Inst. uprawy, nawozenia i  
gleboznawstwa, 1957, No 61, 146-161

Abstract : Field experiments, carried out on an experi-  
mental field in Przibrode in 1951-1953 with  
the Bronovskiy Polosatyy (striped) variety  
are described in this paper. The lowest level  
of fertilization corresponded to P<sub>30</sub>K<sub>60</sub>N<sub>20</sub> and

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Sugar Bearing.

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6348

the highest was 50% greater for all 3 elements.  
The width of the spaces between rows was 60  
and 50 cm and the distance in rows was 20, 30  
and 40 cm. The increase in doses of fertilizer  
in comparison with the lowest amount did not  
increase the productivity and oiliness of the  
plant. The highest yield of seeds was obtained  
when the plants were disposed according to  
the following diagram: 60 x 40 and 60 x 30.  
The yield was higher when the distance between  
rows was 60 cm, than 50 cm. The highest  
degree of oiliness was obtained when the  
plants were disposed as follows: 60 x 30 cm.  
-- A. M. Smirnov

Card 2/2

USSR / Cultivated Plants. Commercial, Oleaceous, Sugar Bearing. M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6349

Author : Dublyanskaya, N. F.  
Inst : All-Union Scient. Res. Inst. of Oleaceous and Essential Oil Crops

Title : Changes in the Contents and Composition of the Non-Saponifying Part of Oils at the Time of Ripening of Sunflower Seeds

Orig Pub : V sb.: Kratkiy otchet o nauchno-izsled. rabote Vses. n.-i. in-ta maslichn i efiromaslichn. kul'tur za 1956 g. Krasnodar, "Sov. Kuban'", 1957, 129-132

Abstract : The relative contents of the total amount of non-saponifying substances, including vitamin E and carotenoids in oil fall in proportion

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USSR / Cultivated Plants. Commercial, Oleaceous, Sugar Bearing. M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6349

to the ripening of achenes of sunflower. The relative content of sterols in oil is stable. Individual sunflower varieties differ in the content of non-saponifying substances, vitamin E being one of them. -- S. S. Zamotailov

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USSR / Cultivated Plants. Commercial, Oleaceous,  
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6350

Author : Rushkovskiy, S. V.  
Inst : All-Union Scient. Res. Inst. of Oleaceous  
and Essential Oil Crops  
Title : Biochemical Characteristics of Seeds in Very  
Oily Subflower Varieties

Orig Pub : V sb.: Kratkiy otchet o nauchno-izsled. rabote  
Vses. n.-i. in-ta maslichn. i efiro maslichn.  
kul'tur za 1956 g. Krasnodar "Sov. Kuban'",  
1957, 123-128

Abstract : Highly oily seeds differ from seeds with low  
oil contents in the following manner: 1) their  
albumin content in the nucleus is lower and  
the hydrophilic nature of the nonfat part of

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Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6350

their nucleus and husk is higher; 2) the  
nonfat part of their nucleus is more soluble  
in water; 3) higher activity of some fer-  
ments; the husk is richer in substances, pro-  
viding for the development of microflora.  
As a result of this, highly oily seeds possess  
greater growth energy and spoil rapidly when  
they are inadequately purified and dried. --  
S. S. Zamotaylov

Card 2/2

USSR / Cultivated Plants. Commercial, Oleaceous, M-4  
Sugar Bearing.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6351

Author : Plyusnina, O. P.

Inst : All-Union Scient. Res. Inst. of Oleaceous  
and Essential Oil Crops

Title : The Effect on the Sunflower Yield of Applying  
Organic-Mineral Mixtures Simultaneously with  
Sowing

Orig Pub : V sb.: Kratkiy otchet o nauchno-izsled. rabote  
Vses. n.-i. in-ta maslichn. i efiro maslichn.  
kul'tur za 1956 g. Krasnodar, "Sov. Kuban'",  
1957, 236-237

Abstract : The following fertilizer variants were tested:  
1) 10 t/ha of manure introduced prior to fall  
plowing, 2) P8 in the form of  $P_c$ , 3) 3 cwt/ha

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Sugar Bearing.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6351

of humus and P8 in the form of  $P_c$ . The  
fertilizers (with the exception of manure)  
were introduced simultaneously with the sowing  
of sunflower next to the seed hills. The  
increments in the first three variants were  
0.6 - 0.8 cwt/ha. It was 1.7 cwt/ha in the  
last variant. -- S. S. Zamotaylov

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RUMANIA / Cultivated Plants. Commercial, Oleaceous, M-4  
Sugar Bearing.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6352

Author : Olteanu, Florica

Inst : Not given

Title : The Effect of Cultivation Practices on the  
Yield of Sunflowers

Orig Pub : Probl. agric., 1958, 10, No 4, 80-86

Abstract : No abstract given

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POLAND / Cultivated Plants. Commercial, Oleaceous, M-4  
Sugar Bearing.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6353

Author : Krynski, Jerzy

Inst : Not given

Title : Testing of Linseed Flax Varieties at the Main  
Experimental Station on the Study of Flax and  
Hemp in Poznan in 1947-1950

Orig Pub : Wydawn. wlasne, Inst. uprawy, nawozenia i  
gleboznawstwa, 1957, No 61, 134-145

Abstract : Thirty-seven varieties and populations obtained  
from Svalef (Sweden) were studied under field  
conditions. These varieties originated from  
22 countries of Europe, Asia, Africa and  
America. The Polish varieites, LCSD 200 and  
Roland, were also studied. The Golden,

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POLAND / Cultivated Plants. Commercial, Oleaceous,  
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6353

Algerian and La Plata varieties were the  
oiliest ones. Vinestr and North American  
varieties produced a good yield of fiber.  
Bison, Golden and La Plata varieties represent  
valuable material for further selection, as  
they are resistant to fungus diseases. --  
A. M. Smirnov

Card 2/2

HUNGARY / Cultivated Plants. Commercial, Oleaceous,  
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6354

Author : Kiss, Ernö

Inst : Not given

Title : Data on the Analysis of the Yield of Flax

Orig Pub : Magyar tud. akad. Agrartud. oszt. közl.,  
1957, 13, No 1-2, 129-145

Abstract : Studies conducted over a period of 3 years  
on the analysis of the crop of many varieties  
and types show that the yield of flax seeds  
is the result of the following four main com-  
ponents: 1) the absolute weight of seeds,  
2) the number of seeds in a boll, 3) the number  
of bolls on the plant, 4) the density of plants.  
A formula for the determination of the yield

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Sugar Bearing.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6354

in accordance with the above is given. As was shown by the studies, the first two components (1st and 2nd) are stable-hereditary, the last two (3rd and 4th) depend on external conditions. The number of bolls in a plant has the decisive influence on the yield of seeds. The yield of fiber can be calculated by using the method of microscopical study of anatomic structure of the plant or by dissection of the fibers on an individual stem. Formulas for determining the yield of fiber are also given. -- F. Yu. Grabar'

Card 2/2

HUNGARY / Cultivated Plants. Commercial, Oleaceous, M-4  
Sugar Bearing.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6356

Author : Mohaczi, Tivadar

Inst : Not given

Title : Problems of Selection of Curly Flax

Orig Pub : Agrartudomany, 1958, 10, No 4, 23-25

Abstract : No abstract given

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POLAND / Cultivated Plants. Commercial, Oleaceous,  
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6357

Author : Priebe, Michal  
Inst : Zelentsin Agricultural Experimental Station  
Title : Sowing of Winter Rape in Protective Plant  
Strips

Orig Pub : Wydawn. własne, Inst. uprawy, nawozenia i  
gleboznawstwa, 1957, No 61, 42-50

Abstract : In 1952-1955, white mustard, pea, summer  
vetch and alfalfa were sown in the fall  
simultaneously with rape between rows in  
field experiments at the Agricultural Experi-  
mental Station in Zelentsin. The protective  
plants in all the experiments did not diminish  
the damage inflicted on the rape by unfavorable

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Sugar Bearing.

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6357

winter conditions. They even lowered its  
yield. -- A. M. Smirnov

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POLAND / Cultivated Plants. Commercial, Oleaceous,  
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6358

Author : Witkowski, Karol Janush; Hoffmannova, Anna  
Inst : Not given

Title : Comparative Study of 4 Winter Rape Varieties  
with Splitting and Non-Splitting Legumes Under  
Various Ecological and Geographical Conditions  
Depending on the Time of Crop Harvesting

Orig Pub : Wydawn wlasne, Inst. uprawy, nawozenia i  
gleboznawstwa, 1957, No 61, 86-94

Abstract : It was found during the field experiments,  
which were carried out at agricultural experi-  
mental stations, situated under various soil-  
climatic conditions in 1952-1953, that when  
the crop is harvested during the period of

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Sugar Bearing.

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6358

overripening the yield diminishes due to  
the dropping of seeds. Non-splitting  
Gurchanskiy and Kastor varieties did not show  
a higher resistance against splitting of  
fruit in comparison with splitting varieties  
(Slenskiy and Sobutkovskiy). -- A. M. Smirnov

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POLAND / Cultivated Plants. Commercial, Oleaceous,  
Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6359

Author : Horodyski, Andrzej

Inst : Not given

Title : Top Dressing Summer Rape with Nitrogen

Orig Pub : Wydawn. wlasne, Inst. uprawy, nawozenia i  
gleboznawstwa, 1957, No 61, 127-133

Abstract : Following variants of introduction of N were applied in field experiments (1953-1955):  
1) 20 before sowing, 2) 40 before sowing,  
3) 60 before sowing, 4) 20 before sowing + 40 before formation of buds, 5) 40 before sowing + 20 before formation of buds, 6) 20 before sowing + 40 before blooming, 7) 40 before sowing + 20 before blooming, 8) 20 before sowing

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Sugar Bearing.

M-4

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6359

+ 20 before formation of buds + 20 before blooming. The introduction of N was always effected with a background of P<sub>30</sub> and K<sub>60</sub>. The division of the application of N in two doses (before sowing and in the budding period) had no effect on the yield. The division of the dose in three equal parts (before sowing, before budding and before blooming) produced the greatest increase of yield. The fat content of seeds diminished with the increase in the dose of N. The greatest decrease took place, when N was introduced before the period of formation of buds or before blooming. The doses and the time of introduction of N had little effect on the absolute weight of seeds.

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POLAND / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6360

Author : Witkowski, Karol Janusz

Inst : Not given

Title : Time of Summer Rape Sowing

Orig Pub : Wydawn. wlasne, Inst. uprawy, nawozenia i  
gleboznawstwa, 1957, No 61, 102-108

Abstract : To determine the optimal time of sowing 29 field experiments were carried out in various soil-climatic zones of Poland in 1946-1953. The highest yields were obtained with sowings which took place during the period between April 5th and May 5th. A considerable decrease of yield was observed in the case of later sowings. The conclusion is drawn that the

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POLAND / Cultivated Plants. Technical.

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6360

summer rape sowing should be effected in each zone 2 weeks after the start of summer grain crops sowings (when the duration of grain crops sowings is not over 2 weeks). --  
A. M. Smirnov

Card 2/2

POLAND / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6361

Author : Hoffmanova, Anna

Inst : Not given

Title : The Effect of the Distance Among Rows and of  
the Various Norms of Sowing of Seeds on the  
Yield of Summer Rape with Various Fertilizer  
Doses

Orig Pub : Wydawn. wlasne, Inst. uprawy, nawozenia i  
gleboznawstwa, 1957, No 61, 109-126

Abstract : It was established on the basis of 25 field  
experiments, which took place in 1946-1953,  
that increased fertilizer doses (50% above  
normal) heightened the yield of summer rape  
seeds. The increase in yield took place  
both with small and large fertilizer doses,

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POLAND / Cultivated Plants. Technical.

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6361

when the distance between rows was 30 cm  
wide. Increasing the sowing norm from 6.9  
up to 12 kg/ha did not produce any substantial  
increase in the yield of seeds. -- A. M. Smirnov

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USSR / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6363

Author : Umen, N. F.

Inst : All-Union Scient.-Res. Inst. of Oleaceous  
and Essential Oil Crops

Title : Sesame Selection

Orig Pub : V sb.: Kratkiy otchet o nauchno-izsled. rabote  
Vses. n.-i. in-ta maslichn. i efiromaslichn.  
kul'tur za 1956 g., Krasnodar, "Sov. Kuban'",  
1957, 70-74

Abstract : Higher productivity, early ripening and slow  
opening of the bolls during ripening were  
noticed in new sesame varieties numbers 412,  
320 and 798 during the competitive variety  
tests held in 1954-1956 (city of Krasnodar).  
The yield of many new early ripening strains

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USSR / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6363

as recorded during the initial selection links  
in 1956, was 8.2 - 9.5 cwt/ha as compared with  
the yield of the control Kubanets variety  
of 4.6 - 5.8 cwt/ha. The majority of inter-  
specie hybrids had greater yields of seeds  
than their parental species in 1956. --  
O. P. Plyusnina

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USSR / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6365

Author : Moshkin, V. A.

Inst : All-Union Scient.-Res. Inst. of Oleaceous  
and Essential Oil Crops

Title : The Results of Experiments with the Castor  
Plant VNIIMK-165 Variety

Orig Pub : V sb.: Kratkiy otchet o nauchno-izsled. rabote  
Vses. n.-i. in-ta maslichn. i efiromaslichn.  
kul'tur za 1956 g., Krasnodar, "Sov. Kuban'",  
1957, 64-69

Abstract : Experiments on the amelioration of VNIIMK-165  
variety castor made it possible to achieve a  
more harmonious ripening, taller plants and  
a decrease in the number of lateral racemes.  
Experimental harvesting with combines, which

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USSR / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6365

was carried out at the Kolkhoz "Kuban".  
Ust-Labinskiy Rayon, Krasnodar Kray in 1955,  
showed that VNIIMK-165 variety, which took  
the first place with regard to the yield of  
seeds among the three varieties (VNIIMK-165,  
Early Hybrid and Sangvineus 401) was charac-  
terized by its tall stems and by the prevalence  
of monoracemous plants. The damage to the  
seeds inflicted during the harvesting was the  
smallest. This variety was recognized as the  
most suitable for harvesting with combines. --  
O. P. Plyusnina

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USSR / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6366

Author : Kara, I. G.  
Inst : Odessa Agricultural Institute  
Title : Some Problems of Agricultural Engineering  
of Castor Plant Cultivation in the Central  
Steppe of the UkrSSR

Orig Pub : Avtoref. diss. S.-kh. n.-i. Odessk. s.-kh.  
in-t, Dniepropetrovsk, 1958

Abstract : No abstract given

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YUGOSLAVIA / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6367

Author : Teshich, Branislava  
Inst : Not given  
Title : Blooming, Pollination and Ripening of Fruits  
of Peanuts

Orig Pub : Pol'oprivreda, 1957, 5, No 7-8, 69-74

Abstract : No abstract given

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POLAND / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6369

Author : Jablonski, Miron  
Inst : Higher Agricultural School in Poznan  
Title : The Effect of Sowing Time and Sowing Norm  
on the Yield of Seeds and of Oil of the  
Purple Common Perilla

Orig Pub : Wydawn. wlasne, Inst. uprawy, nawozenia i  
gleboznawstwa, 1957, No 61, 162-176

Abstract : Field experiments, which took place at experi-  
mental stations of the higher agricultural  
school in Poznan during 1950-1954, as well as  
experiments in various soil-climatic zones  
of Poland showed that there was no substantial  
difference in yield and oiliness of seeds,  
when perilla was sowed during the period between

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POLAND / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6369

April 15th and May 15th in doses of 5 - 15  
kg/ha (at intervals between rows of 33 cm).  
It is preferable to carry out the sowing  
earlier (not later than the end of summer  
grain crop sowings) due to the length of the  
vegetation period. Perilla requires more  
daylight and is therefore an unreliable crop  
for Poland. Relatively more favorable condi-  
tions for its cultivation exist in the south-  
western part of the country. -- A. M. Smirnov

Card 2/2

USSR / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6371

Author : Momot, Ya. G.  
Inst : Milyutin Selection Station  
Title : Lallemandia on the Unirrigated Plots of  
Uzbekistan

Orig Pub : V sb.: Maslichn. kul'tury v vost. r-nakh  
USSR, Krasnodar, "Sov. Kuban'", 1956, 168-173

Abstract : Lallemandia is a promising crop for the  
unirrigated plots Uzbekistan, which is semi-  
irrigated. Higher yields (4.29 cwt/ha on  
the average) were obtained in 1940-1944 at the  
Milyutin Selection Station, when pre-winter  
sowing was used. Plant diseases were observed  
only on DSS-2 and DSS-4 varieties of the Rostov  
selection in 1945. The best sowing method on

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M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6371

pure soils is uniform sowing in rows with  
doses of 10 kg/ha at a depth of 2 - 3 cm.  
The sample of VIP k. 11 and the new O34 variety,  
produced at the station, were among the best  
sown in the spring with respect to yield  
at the competitive variety tests in 1945 and  
1947. No 2 variety of the Don selection was  
the best among the pre-winter sowing  
varieties. -- O. P. Plyusnina

Card 2/2

BULGARIA / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6374

Author : Mazhdakov, N.; Popov, As.

Inst : Chemical Institute, Bulgarian Acad. of Science

Title : Field Experiments with Oenothera Lamarckina  
Ser. and Chemical Analyses of Oil Obtained  
From Its Seeds

Orig Pub : Izv. Khim. in-ta Bulg. AN, 1957, 5, 209-216

Abstract : Biennial plants produce 200 - 250 kg/ha of  
seeds with 22 - 25% oil contents. Their oil  
occupies an intermediate position between  
siccatives and semi-siccatives and can be  
utilized as a replacement for the preparation  
of drying oil and varnishes.

Card 1/1

POLAND / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6375

Author : Kozlowski, Jan

Inst : Not given

Title : Dynamics of Oil Accumulation in Rhizomes  
of Acorus Calamus L. During the Vegetation  
Period

Orig Pub : Acta polon. pharmac., 1958, 15, No 2, 93-98

Abstract : No abstract given

Card 1/1

USSR / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6378

Author : Gachinskiy, E.

Inst : Not given

Title : The Sugar Beet

Orig Pub : Nauka i peredovoy opyt v s.-kh., 1958, No 6,  
73-76

Abstract : This is a brief outline of the development  
of the sugar beet production in USSR from the  
end of the 18th century up to the present.

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GDR / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6379

Author : Hintzsche, E.; Oehme, H.

Inst : Not given

Title : The Increase of Sugar Beet Yields by Means  
of Regulated Crop Rotations

Orig Pub : Mitschurinbewegung, 1958, 7, No 3, 101-107

Abstract : Bringing sugar beet sowing up to 240 t/ha  
[sic!] and the productivity up to 320 cwt/ha  
is one of the agricultural goals of the GDR.  
Crop rotation is of particular importance to  
the increase in productivity; it is of paramount  
importance in resisting nematodes. The plants  
which can attract nematodes must occupy a  
minimum of area, no more than 20 - 25 of  
the crop rotation area. At the same time, it

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M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6379

is necessary to increase the area occupied by plants which are enemies of nematodes. The purity of fields from weeds also guarantees the success of the resistance to nematodes. Preceding crops are of great importance. Potatoes fertilized with manure represent the best preceding crop; winter rye with an introduction of manure directly under beets is the next best. Winter wheat is considered as the best preceding crop among the grain crops. An analysis of 3 examples of 10-field crop rotations with one or one and a half fields of beet is given. -- G. Yu. Dinesman

Card 2/2

USSR / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6380

Author : Timoshinin, V. D.  
Inst : Grodno Agricultural Institute  
Title : Data on the Characteristics of the Sugar Beet Growth in Western Beet-Sowing Districts of the Belorussian

Orig Pub : Tr. Grodnensk. s.-kh. in-ta, 1957, vyp 3,  
49-55

Abstract : Experiments carried out by the Department of Plant Cultivation of the Grodno Agricultural Institute in 1953-1955 show that in the western districts of the Belorussian, daily increments of sugar beet roots during the fall are greater than in the beet sowing districts of the Ukraine. Taking into account, the direct

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M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6380

relation which exists between the development of the tops and the yield of roots, it is necessary to keep the maximum number of leaves on the plant before harvesting, in order to obtain a high yield of sugar beets in Belorussia. In order to obtain this result, it is necessary to create an agrotechnical background, which will guarantee an increment in weight for well developed tops which will not be less than that of roots up to September 1st - 10th. After that date (up to the end of the harvest of the crop) there should be a rapid outflow of assimilation products from the leaves into the roots. In dry years it is very important to keep the assimilation activity of the sugar beet leaves at least until September 20 - 25th.

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6380

This can be obtained by proper nourishment of sugar beet with a simultaneous improvement of the water-air soil conditions. -- B. L. Klyachko-Gurvich

Card 3/3

USSR / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6381

Author : Kotova, M. P.  
Inst : Altay Agricultural Institute  
Title : Cultivation of One Seed Beets in the Altay  
Forest-Steppe

Orig Pub : Sb. stud. nauchn.-rabit Altaysk. s.-kh. in-t,  
1957, vyp 6, 9-16

Abstract : The effectiveness of growing one seed sugar  
beets (a mixture of seeds of Bielotserkovskiy  
and Yaltushkovskiy varieties) compared to  
the common multi-seed beet of the B541 variety  
was studied at the Kosikhin sugar beet sovkhoz of  
Altay Kray in 1955. One-seed sugar beets were  
sown at the rate of 15 and 30 kg/ha and the  
usual norm is 30 kg/ha. The sowing took place

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USSR / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6381

on May 12th. One-seed sugar beet produced a  
yield of 300.3 cwt/ha with a sowing norm of  
30 kg/ha. Common beets produced only 232  
cwt/ha with identical saccharinity (14%).  
The amount of manual work involved in digging,  
testing and harvesting in one-seed sugar  
beets was 32% less than in the case of common  
sugar beets on the average. When one-seed  
sugar beets were sown in quantities of 15  
kg/ha, the yield was 231 cwt/ha and the sacchar-  
inity was 14.05. The amount of work necessary  
to grow this variant is not indicated. --  
N. I. Orlovskiy

Card 2/2

USSR / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6382

Author : Yakimenko, I. A.

Inst : Voronezh Agricultural Institute

Title : Changes in Yield and in Quality of Parental  
Sugar Beets According to the Disposition of  
Plants and the Fertilizer Bases in the  
Mikhaylovskiy Sovkhoz

Orig Pub : Zap. Voronezhsk. s.-kh. in-ta, 1957, 27, No 2,  
269-272

Abstract : The combination of humus (before cultivation)  
and mineral fertilizer used in rows and of  
top dressing produced the heaviest roots (350 g)  
and the greatest planting density (100.8  
thousand/ha), but the smallest saccharinity  
(18.8%). The introduction of phosphorous

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USSR / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6382

fertilizers alone in rows and in the top  
dressing sharply diminished the weight of the  
roots (down to 210 g) but increased the  
saccharinity (up to 19.4%) when the density  
of plants was 97.9 thous/ha. Large doses of  
Naa are harmful in the fertilization of rows.  
They have an adverse effect on germination  
and decrease the density of plants (down to  
90.5 thous/ha). The greatest density of plants  
(89.6 thous/ha, sic!) was obtained in beds  
which had a surface of 44.5 x 18 cm. The  
weight of the roots was 238 g and the  
saccharinity was 15.5%. The least density of  
plants (42.8 thous/ha) was observed when the  
plants were disposed in squares of 44.5 x 44.5  
cm. The heaviest roots (350 g) and the

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M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6382

smallest saccharinity (15%) were observed in this case. With the variant of 44.5 x 44.5 cm, intermediate values were obtained in the case of two plants. The increase in saccharinity of 0.4% obtained by introducing PK as additional top dressing, when the plants are disposed in a square, is worth consideration. The experimental was carried out at the Voronezh Agricultural Institute. -- N. I. Orlovskiy

Card 3/3

USSR / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6383

Author : Bulavin, A. I.

Inst : Khar'kov Agricultural Institute

Title : The Increase in Productivity and Saccharinity of Sugar Beets by Means of Hybridization

Orig Pub : Zap. Khar'kovsk. s.-kh. in-ta, 1958, 15 (52),  
127-134

Abstract : Roots of the P632 variety grown in Khar'kovskaya Oblast' (on the Fedorov variety plot) and roots of the U752 variety, grown on the Uladovo-Lyulinets Selection Station (Vinnitsa Oblast') were used for intervarietal cross breeding. Roots of the P632 variety, grown at the Uladovo-Lyulinets Station and in the Fedorov variety plot, were used for intra-

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6383

varietal breeding. Seeds from the roots of the B632 variety alone, grown at the Uladovo-Lyulinets Station were used as control. The cross breeding was carried out when plants left to run to seed were grown in laboratories in winter with additional electric light and then under natural field conditions. The testing of seeds grown in this manner was carried out during the usual spring sowing period with winter plants left to seed. The trials were made at the time of summer sowing (July 20th) with spring plants under field conditions. The increase in yield and the amelioration of quality of seeds was highest in the case of intervarietal cross breeding and somewhat lower for intravarietal cross breeding. An increase in the yield of

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USSR / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6383

roots and of the sugar crop obtained by intervarietal (to a greater degree) and intravarietal cross breeding was also noticed. The experiments took place at the Khar'kov Agricultural Institute in 1952-1954. -- N. I. Orlovskiy

Card 3/3

HUNGARY / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6385

Author : Vukov, Konstantin; Zana, Janos

Inst : Not given

Title : The Effect of the Density of Sowings on the Quality and Yield of Sugar Beets

Orig Pub : Cukoripar, 1958, 11, No 1, 16-20

Abstract : The yield decreases and quality of sugar beets deteriorate (decrease in saccharinity and an increase in the ash content of the juice) when the density of plants is: 87 - 91 thous. on 1 ha.

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HUNGARY / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6386

Author : Nemeth, Jozsef

Inst : Not given

Title : Polyploid and Seed Cultivation of Sugar Beets

Orig Pub : Magyar mezőyazd., 1958, 13, No 7, 8-9

Abstract : No abstract given

Card 1/1

HUNGARY / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6387

Author : Vukov, Konstantin

Inst : Not given

Title : Comparative Characteristics of Individual  
Sugar Beet Varieties According to the Data  
Supplied by Field Experiments

Orig Pub : Cukoripar, 1958, 11, No 2, 37-39

Abstract : No abstract given

Card 1/1

POLAND / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6388

Author : Lachowski, Jerzy

Inst : Not given

Title : Comparative Action of Dust and Granulated  
Superphosphate in the Fertilization of Sugar  
Beets

Orig Pub : Gaz. cukrown., 1958, 60, No 4, 131-134

Abstract : No abstract given

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USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6  
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6390

Author : Petrosyan, G. P.  
Inst : Acad. of Science Arm SSR  
Title : The Growth of Roots of Some Fruits on Salted  
Soils

Orig Pub : Izv. AN ArmSSR, Biol. i s.-kh. n., 1957, 10,  
No 11, 79-91

Abstract : Experiments on the study of salt resistance in  
the Araxes valley region were carried out on  
plots which had sodium sulfate-carbonate-  
chloride salting. Ground water was lightly  
salted (224 g/l), the surface of the water was  
at a depth of 2.0 - 2.25 m in the winter, and 1.2  
- 1.4 m in summer. The planting was effected

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USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6  
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6390

in pits of 60 x 60 cm, filled with soil which  
was free of salt. Most of grafted sets of  
apple trees perished when the soil contained  
0.258 - 0.357% of easily soluble salts; the  
seedlings were more resistant. Pear trees  
grew better under these conditions. Quince  
grew well on soil containing 0.675 - 0.725%  
of the salts. The roots of quince penetrated  
deeper than the bottom of the pit. Pomegranate  
is also adequately resistant but oleaster is  
the most salt resistant plant. -- I. K.  
Fortunatov

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GDR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6  
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6393

Author : Kobel  
Inst : Karl-Marx University  
Title : Problems Relating to the Physiology of Fruit  
Trees

Orig Pub : Wiss. Z. Karl-Marx Univ., Leipzig, 1956-1957,  
6, No 5, 557-564

Abstract : Experiments, carried out at the Fruit Cultivation  
Institute in Wädenswil (Switzerland) showed  
that the necessity of thinning out the top  
of trees is based on the fact that leaves which  
are in the shade consume more carbohydrates than  
they can produce. To obtain regular fruit-  
bearing, it is recommended to make the ratio of

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GDR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6  
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6393

N : P<sub>2</sub>O<sub>5</sub> : K<sub>2</sub>O close to 2.5 : 1 : 3.5 The  
symptoms of deficiency of N, P, K, Mg, B and  
Zn in apple trees are described. Rootstocks  
E. M. V and II were good indicators of K  
deficiency in the soil. -- I. P. Chernyaev

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USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6  
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6395

Author : Spivakovs'kiy, N.

Inst : Not given

Title : Basic Soil Cultivation and Fertilization in  
Orchards

Orig Pub : Vinogradarstvo i sadovodstvo Kryma., 1958,  
No 2, 18-21

Abstract : Keeping of orchards under turf accumulated  
over many years is the main reason for the poor  
state of trees in orchards and their low yield.  
Recommendations on the plowing of sod and on a  
regular system of soil cultivation are given.

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USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6  
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6397

Author : Siddikov, Kh.

Inst : Geogr. Society USSR, Uzb. Branch

Title : Present State of Cultivation of Orchards and  
of Viticulture in the Kolkhoz' of the Tashkent  
Oblast'

Orig Pub : Izv. Uzbekist. fil. Geogr. o-va USSR, 1957,  
3, 113-127

Abstract : The natural-historical conditions are described.  
The state of cultivation of orchards in various  
regions is also described. The progress of  
reconstruction of orchards and vineyards dam-  
aged by frost in November 1954 is evaluated.  
The prospects of development of orchard cul-  
tivation are indicated.

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USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6  
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6399

Author : Solov'eva, M. A.  
Inst : Ukrainian Institute of Orchard Cultivation  
Title : Degree and Kind of Damage to Saplings Inflicted  
by Frost

Orig Pub : Sad i ogorod, 1958, No 2, 53-56

Abstract : Observations carried out by the Ukrainian  
Institute of orchard cultivation in 22 nur-  
series of the Ukraine showed that the damage  
inflicted by rigorous winters to the wood of  
fruit saplings is strongest in the central part  
of the stem. It is therefore recommended to  
make control cuts, specifically in that part  
of the stem, when studying frostbites.

Card 1/1

CZECHOSLOVAKIA / Cultivated Plants. Fruits, Berries, M-6  
Nutbearing, Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6401

Author : Buchta, Viktor  
Inst : Czechoslovak Agricultural Academy  
Title : Slovakian Achievements in the Field of Fruit  
Tree Pruning, Particularly with Respect to  
Apricots, Peaches and Almonds

Orig Pub : Sbor. Ceskosl. akad. zemed. ved. Rostl.  
vyroba, 1956, 29, No 5, 487-495

Abstract : The top of apricot trees is formed after 4 - 5  
years, and the trees are thinned out in August  
only, when they start to bear fruit. The  
largest branches are also shortened during the  
period of fruit bearing. A kettle shaped tree  
top is formed after 3 - 4 years in peach trees.

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CZECHOSLOVAKIA / Cultivated Plants. Fruits, Berries, M-6  
Nutbearing, Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6401

Annual shoots are cut for 4 - 5 triple buds and the others for 2 - 3 buds when the tree starts to bear fruit. The pruning of almond trees is carried out in the same manner as in the case of peach trees but with minimum removal of shoots.

Card 2/2

YUGOSLAVIA / Cultivated Plants. Fruits, Berries, M-6  
Nutbearing, Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6402

Author : Stancevic, Asen. S.  
Inst : Fruit Cultivation Institute Chachak  
Title : The Effect of Tree Nursing Without Pinching  
on the Amelioration of Their Qualities, and  
the Lowering of the Production Costs in  
Nurseries

Orig Pub : Archiv poljoprivredne nauke, 1956, 9, No 23,  
61-72

Abstract : Experiments, conducted at the Fruit Cultivation  
Institute in Chachak (Yugoslavia), showed  
that pinching is not necessary when the lateral  
buds on the stem are cut before the start of  
the growth of shoots. The cost of saplings

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YUGOSLAVIA / Cultivated Plants. Fruits, Berries, Nutbearing, Teas. M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6402

in this case diminished by 22% and their quality improved, as the tree is not damaged by cutting of lateral shoots. -- I. K. Fortunatov

Card 2/2

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, Teas. M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6404

Author : Vazhov, V.  
Inst : Not given  
Title : Spring Frost Protection of Perennial Plantings

Orig Pub : Vinogradarstvo i sadovodstvo Kryma, 1958,  
No 3, 27-29

Abstract : No abstract given

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BULGARIA / Cultivated Plants. Fruits, Berries,  
Nutbearing, Teas.

M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6406

Author : Khristov, Lulcho; Vorbanov, Tsvyatko

Inst : Not given

Title : The State and Prospects of Fruit Cultivation  
Development in the Neighborhood of Vrachanska

Orig Pub : Ovoshcharstvo i gradinarstvo, 1958, No 1, 10-16

Abstract : No abstract given

Card 1/1

RUMANIA / Cultivated Plants. Fruits, Berries,  
Nutbearing, Teas.

M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6407

Author : Wagner, St.

Inst : Not given

Title : Rootstocks of Pip Fruit Species, Propagated  
by Vegetative Means

Orig Pub : Gradina, via si livada, 1958, 7, No 5, 40-42

Abstract : No abstract given

Card 1/1

RUMANIA / Cultivated Plants. Fruits, Berries,  
Nutbearing, Teas.

M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6408

Author : Dobrescu, V.

Inst : Not given

Title : Remarks and Recommendations with Regard to  
Fruit Cultivation in the Dobrudja Steppe  
(Rumania)

Orig Pub : Gradina, via si livada, 1958, 7, No 5, 35-39

Abstract : No abstract given

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USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6  
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6413

Author : Barsukov, N.

Inst : Omsk Agricultural Institute

Title : Longevity of Rennet Orchards in Siberia

Orig Pub : S.-kh. Sibiri, 1958, No 2, 68-70

Abstract : Stem grafted rennet-apple orchards perish  
during their 14th - 15th year in Siberia.  
However, seedlings and rooted trees produced  
with cuttings or root scions (from rooted  
plants), live up to 60 years and are highly  
productive. This method of propagation,  
verified at the Omsk Agricultural Institute,  
is recommended.

Card 1/1

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6  
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6414

Author : Lyarskaya, R. P.  
Inst : Moscow University  
Title : The Formation of Accessory Buds on the Roots  
of an Apple Tree

Orig Pub : Vestn. Mosk. un-ta, Ser. Biol., pochvoved.,  
geol., geogr. 1957, No 1, 53-62

Abstract : The anatomical picture of the setting, forma-  
tion and development of buds of wild apple  
trees from Kamyshin and of wild apples from  
the Moscow suburbs on the roots of Dwarf apple,  
Paradiska 9 and Kitayka in the city of  
Michurinsk was studied. Many sprouts were  
formed when horizontal roots were damaged on

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USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6  
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6414

the examined apple tree species. The picture  
of setting, formation and development of  
accessory root buds in various apple tree species  
is identical. The embryos of buds are formed  
in the parenchymal tissue, which can be bast  
and radial parenchyma or parenchyma of the  
secondary bark, situated under the cork.  
Meristematic embryos develop in buds and  
grow in sprouts most intensively on roots  
which are 4 - 10 mm thick. When the root is  
thicker or thinner, they constitute a store  
of "dormant buds". Mass bud setting on  
damaged or cut roots can be utilized for  
apple tree propagation by means of root  
scions. -- I. K. Fortunatov

Card 2/2

YUGOSLAVIA / Cultivated Plants. Fruits, Berries,  
Nutbearing, Teas.

M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6415

Author : Misic, Petar D.  
Inst : Yugoslavia Fruit-Growing Institute  
Title : The Effect of Meteorological Factors on the  
Beginning of the Period of Blooming of Some  
Apple Tree Varieties

Orig Pub : Archiv poljoprivredne nauke, 1956, 9, No 23,  
37-48

Abstract : The results of five years of observations at  
the Fruit-Growing Institute in Cačak (Yugo-  
slavia) on apple tree varieties are given in  
this paper. Apple tree varieties, grafted on  
standard rootstocks, bloomed, under normal  
weather conditions, if a certain temperature

Card 1/2

YUGOSLAVIA / Cultivated Plants. Fruits, Berries,  
Nutbearing, Teas.

M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6415

total above the biological zero was achieved  
starting on January 1st. Varieties, grafted  
on seedlings of forest apple trees, required  
a somewhat greater temperature total, than  
those grafted on M IX. The biological zero  
for different varieties was 5.5 - 7°.

Card 2/2

GDR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6  
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6416

Author : Murawski, H.; Wieloch, Elisabeth

Inst : Not given

Title : The Fitness of Apple Tree Hybrid Varieties  
for Utilization

Orig Pub : Dtsch. Gartenbau, 1957, 4, No 10, 260-262

Abstract : The fruits of hybrids, obtained as a result of cross breeding of Ernst Bosch and Malus niedzwetzkyana apple trees possess all the necessary properties to obtain high grade wines, fresh aromatic juices and tasty marmalade and preserves by reprocessing. The taste and color of the wines obtained from these apples resembles some southern dessert

Card 1/2

GDR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6  
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6416

wines, particularly vermouth. The fruits are characterized by their intensive coloring (dark red), good fresh taste and strong aroma; the average weight of the fruit is 150 g. The yield is abundant and ripens in the middle of September. It is recommended to create new apple tree varieties by cross breeding many varieties with this apple tree species. -- Z. S. Degtyareva

Card 2/2

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6  
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6418

Author : Danilov, V. I.  
Inst : Altay Agricultural Institute  
Title : The Trained Apple Culture in Siberia

Orig Pub : V sb.: Obrezka i formirovaniye plodovykh  
derev'ev, Barnaul, 1957, 103-105

Abstract : A horizontal-ringshaped form for the creeping  
large fruit apple tree varieties and a low  
bushy one for semi-cultivated varieties,  
tested by the Altay Agricultural Institute  
for the Altay Kray and Omskaya Oblast' are  
recommended.

Card 1/1

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6  
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6419

Author : Chepikov, A. K.  
Inst : Not given  
Title : Training and Pruning Apple Trees in  
Novosibirskaya Oblast'

Orig Pub : V sb.: Obrezka i formirovaniye plodovykh  
derev'ev, Barnaul, 1957, 112

Abstract : A bush which has the elements of a bushy  
flat crown is the most convenient form for  
production.

Card 1/1

RUMANIA / Cultivated Plants. Fruits, Berries,  
Nutbearing, Teas.

M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6420

Author : Botez, I.

Inst : Not given

Title : Jonathan - Apple Tree Variety

Orig Pub : Gradina, via si livada, 1958, 7, No 5, 43-47

Abstract : No abstract given

Card 1/1

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6  
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6424

Author : Yakovlev, P. I.

Inst : Not given

Title : Growing Apple and Pear Saplings without  
Thorns and Node Sprouts

Orig Pub : S.-kh. Tadzhikistana, 1957, No 6, 23-27

Abstract : Cultivation of seedlings, where the wilding  
is cut off directly over the grafted eye and  
the axillary sprouts growing on the stem of  
the graft are broken off while the main  
leaves are left on the stem is practiced  
in nurseries of Tadzhikistan in order to save  
time and reduce the price of planting  
material. It is recommended to cut off the

Card 1/2

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6  
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6424

thorn in the late fall. The breaking of axillary sprouts is effected separately for each variety when their length is not more than 3 cm. The experiment, which took place in the Shakhrinauskiy Sovkhoz, showed that this method of cultivation shortens 6 manual operations. The grafted buds blossom more uniformly and 5 - 12 days earlier. The yield of standard seedlings in the majority of studied apple tree and pear tree varieties was higher than in the case of the former method of cultivation. -- V. R. Yermakova

Card 2/2

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6  
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6425

Author : Kushnirenko, M. D.  
Inst : Central Genetic Laboratory, Michurinsk  
Title : The Importance of the Water Regime of the  
Stages of the Top of Apple and Pear Trees  
in the Formation of Hybrid Seedlings

Orig Pub : V sb.: Bibl.-osnovy oroshaem. zemled., M.  
AN USSR, 1957, 186-194

Abstract : 25 - 30 year old apple trees selected by  
I. S. Gorshkov and S. F. Chernenko, which  
are characterized by good frost resistance  
and a well defined multistage top, were  
taken as mentors at the Central Genetic  
Laboratory (Michurinsk). Scions of the aport

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USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6  
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6425

anise apple variety were grafted on them, and scions of cultivated pear trees were grafted on the wild pear trees in the spring of 1953. The extension of the bud scales and the opening of buds started earlier on the lower stages of the top and on the grafting made on them. The increment of annual sprouts, water supply of sprouts and leaves, and transpiration intensity were greater in the lower stages of the top. The leaves of the upper stages of the mentor and of the grafts made on them were more xeromorphic. They were characterized by a greater suetorial power, greater osmotic pressure, drought resistance and suffered less from water scarcity. -- I. K. Fortunatov

Card 2/2

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6  
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6427

Author : Korvatskiy, D. A.  
Inst : Dagestan Scientific-Res. Institute of  
Agriculture  
Title : The Effect of the Water-Salt Level in the  
Soil on the Rootstocks of the Mazzard  
Cherry Tree

Orig Pub : Byul. nauchno-tekhn. inform. Dagestansk.  
n.-i. in-ta s.-kh., 1957, No 1, 5-8

Abstract : Observations on Mazzard cherry tree (*Prunus avium*) plantings, conducted in southern Dagestan, showed that the cultivated cherry tree, grafted on the wild one, produces tall and long lasting trees. They produce high yields,

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USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6  
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6427

but consume a great deal of water. When the Mazzard cherry is grafted on the sour cherry (*Prunus cerasus*), it produces trees of medium height, which supports low salinity and is a good fruit bearer. When it is grafted on the Mahaleb cherry, it produces trees of medium height; they enter rapidly into the phase of commercial fruit bearing and are very productive. They are more drought resistant than those grafted on the first two rootstocks, but they are less salt-resistant.

Card 2/2

POLAND / Cultivated Plants. Fruits, Berries, M-6  
Nutbearing, Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6428

Author : Zarzycki, Kazimierz

Inst : Not given

Title : Dwarf Cherry or Steppe Cherry

Orig Pub : Chronmy przr. ojcz., 1958, 14, No 1, 13-20

Abstract : No abstract given

Card 1/1

BULGARIA / Cultivated Plants. Fruits, Berries, Nutbearing, Teas. M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6429

Author : Spasov, Tsocho

Inst : Not given

Title : Pruning of Prune and Cherry Trees

Orig Pub : Oveshcharstvo i gradinarstvo, 1958, No 3,  
14-17

Abstract : No abstract given

Card 1/1

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, Teas. M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6431

Author : Yershov, L. A.

Inst : Not given

Title : Growth and Development of the Root Systems  
of Various Peach Tree Stocks in the Crimean  
Steppe

Orig Pub : Byul. nauchn. inform. Gos. Nikitsk. sad,  
1957, No 5-6, 53-57

Abstract : The strength and character of the structure  
of root systems and the dynamics of the growth  
of active roots in their yearly growth cycle  
in peach, apricot, almond and myrobalan plum  
trees, on which Alberta and Ak-Sheftalyu No  
3 peaches were grafted, were studied during

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USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6  
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6431

1952-1955. Excavations were carried out according to the "monolith" method and the active roots were studied according to the "arbitrary monolith" method. Plants grafted on peach and apricot trees produced a stronger root system starting in their first years of growth on non-irrigated, dark chestnut, weakly saliferous soil. The main mass of the root system on all studied stocks was disposed in layers A and B. The degree of development of the root system is closely connected with the growth norm of the surface organs.<sup>4</sup> Subsequent periods in the annual growth cycle of the root system of the stocks were established. The spring-summer maximum of growth of roots

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USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6  
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6431

takes place over a period of  $2\frac{1}{2}$  months for peach trees,  $2\frac{1}{2}$  - 3 months for almond and apricot trees, and  $3\frac{1}{2}$  - 4 months for the plum trees. The summer slow-down of the growth of the root system is explained by the increase in the temperature (over  $21^{\circ}$ ) and by the lowering of the moisture of the soil. The length of this period is 2 months for apricot and peach trees,  $1\frac{1}{2}$  - 2 months in the case of almond trees, and  $2\frac{1}{2}$  months for plum trees. The fall maximum in root growth takes place over a period of  $2\frac{1}{2}$  months for the almond and plum trees and 3 months for peach and apricot trees. The growth of the root system slows down in the winter because of the lowering of

Card 3/4

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6  
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6431

the soil temperature down to +5°. The growth of the root system stops in the winter when the soil temperature descends down to +2°. Soil watering and the introduction of fertilizers should be coordinated with the beginning of the accelerated period of growth of the root system of every stock species. It is necessary to carry out the fall plowing in the peach orchard before the beginning of the period of growth of active roots in the fall, but not later than 1 - 1½ months before the end of this period. -- I. K. Fortunatov

Card 4/4

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6  
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6435

Author : Yusubov, A. M.  
Inst : Voronezh Agricultural Institute  
Title : Germination of Apricot Seeds

Orig Pub : Sad i ogorod, 1958, No 2, 58-59

Abstract : The study of the effect of low temperatures on stratified apricot seeds, carried out at the Fruit and Vegetable Experimental Station, Voronezh Agricultural Institute in 1954-1956, showed that the action of low temperatures (-1-2°) on seeds (during 10 - 80 days) increased germination and growth energy. The growth of seedlings also improved. The control seeds were kept at temperatures of +4°, +5° during the whole stratification period.

Card 1/1

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6  
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6437

Author : Tuz, A. S.

Inst : Not given

Title : Anomalous Blooming and the Fruit Bearing  
of Walnut

Orig Pub : Priroda, 1958, No 5, 91-92

Abstract : A repeated blooming of walnut was observed  
in Uzbekistan when the trees were damaged  
by frost. The Fergan Agricultural Station  
in Kuva produced a walnut tree which blooms  
late and is not susceptible to damage to frost.

Card 1/1

CHINA / Cultivated Plants. Fruits, Berries, Nutbearing, M-6  
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6439

Author : Ch'en Ping-Hao; Feng Tsun-Wei

Inst : Not given

Title : The Oil-Bearing Tree, the Siberian Filbert  
(*Corylus Heterophylla*)

Orig Pub : Shen-Wu hsüeh t'ung pao, 1958, No 2, 32-34

Abstract : No abstract given

Card 1/1

BULGARIA / Cultivated Plants. Fruits, Berries,  
Nutbearing, Teas.

M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6440

Author : Serafimov, Serafim

Inst : Not given

Title : New Almond Plantings

Orig Pub : Ovoshcharstvo i gradinarstvo, 1958, No 3,  
22-25

Abstract : No abstract given

Card 1/1

GDR / Cultivated Plants. Fruits, Berries, Nutbearing,  
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6444

Author : Müller, H.

Inst : Not given

Title : Problems Posed by the Cultivation of Black  
Currant

Orig Pub : Dtsch. Gartenbau, 1958, 5, No 2, 40-43

Abstract : The cultivation of black currant in GDR has  
increased lately. A description of common  
currant varieties, methods of propagation  
and planting is given.

Card 1/1

GDR / Cultivated Plants. Fruits, Berries, Nutbearing, Teas. M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6445

Author : Vieloch, Elisabeth, Sorge, P.

Inst : Not given

Title : Utilization of Black Currant Depending on the Variety

Orig Pub : Dtsch. Gartenbau, 1958, 5, No 2, 43-46

Abstract : The following black currant varieties have become important in the GDR: Black Rosenthal, Black Silverter and Goliath. A description of these varieties and the fitness of each one of them for reprocessing is given.

Card 1/1

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, Teas. M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6446

Author : Potapov, S.

Inst : Not given

Title : New Gooseberry Varieties

Orig Pub : Mosk. kolkhoznik, 1958, No 5, 41

Abstract : The best gooseberry varieties (Smena, Izumrudnyy, Pyatiletka), which were tested successfully in the Kolomenskiy variety sector of fruit-berry (Moskovskaya Oblast<sup>1</sup>) crops, are recommended.

Card 1/1

GDR / Cultivated Plants. Fruits, Berries, Nutbearing, Teas. M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6448

Author : Eichholz, W.

Inst : Not given

Title : Utilization of Seabuck Thorn Berries

Orig Pub : Nahrung, 1958, 2, No 2, 156-168

Abstract : The harvesting of seabuck thorn berries requires much work and is not mechanized, a fact which hampers its wide cultivation. Berries can not endure transportation and therefore their utilization for reprocessing is possible only in the vicinity of the plantings. The production of vitamin C and of fats from these berries does not present any advantages in comparison with other vegetable raw materials.

Card 1/1

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, Teas. M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6450

Author : Akchurun, R. K.

Inst : All-Union Sci. Res. Institute of Vini- and Viticulture

Title : Irrigation of Vineyards in the Southern Ukraine

Orig Pub : Byul. nauchno-tekhn. inform. Vses. n.-i. in-t vinodeliya i vinogradarstva, 1957, No 2, 21-28

Abstract : Experiments, carried out in the Zaporozh'ye Oblast' on light argillaceous chernozem, and in the Odessa Oblast' on heavy argillaceous chernozem, showed that the moisture of the soil at a depth of 2 meters, created by

Card 1/3

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6  
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6450

watering 1500 - 2000 m<sup>3</sup>/ha persisted during dry years until the first half of July. It provides for a relatively secure weathering of the first three phases of development of the grape bush. The increment of yield caused by the watering was 11 - 12%. The increment of yield in experiments with irrigation was 60%, when the load was unchanged, when the load was increased by 61- 67%, the increment was 138% and when the load was increased more than twice, the increment was >700%. Optimal watering doses for light argillaceous chernozems are 1500 m<sup>3</sup>/ha. For heavy argillaceous chernozems the best dose was 2000 m<sup>3</sup>/ha. The moisture of the layer where the roots are should be maintained during

Card 2/3

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6  
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6450

the vegetation period at the level of 70 - 75% of capacity for the table grape varieties. During the period of full ripeness, the moisture level should be at 60% of capacity. It is necessary to increase the load of shrubs during irrigation. -- I. K. Fortunatov

Card 3/3

HUNGARY / Cultivated Plants. Fruits, Berries,  
Nutbearing, Teas.

M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6452

Author : Ebenyi, Gyula

Inst : Not given

Title : The Fertilization of Grapes

Orig Pub : Agrartudomany, 1956, 8, No 7, 299-302

Abstract : The possibility of replacing manure by other organic fertilizers was studied. Rubbish, straw, crushed vine, turf, lignite, reed combined with mineral fertilizers were used. Experiments took place in Kecskemet on sandy soil, in Tokaihegyalja - on argillaceous soil, in Eger on neutral soils and in Badacson - on sierozem soils. Whenever manure was not applied at least once every 3 - 4 years, any

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HUNGARY / Cultivated Plants. Fruits, Berries,  
Nutbearing, Teas.

M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6452

combinations with other fertilizers remained ineffective. Artificial organic fertilizers were placed in the fall into the soil at a depth of 25 - 30 cm and were covered with a layer of mineral fertilizers. In most variants, the humification of organic substances had started already during the first year and finished during the third year. The increment in yield on loess-like soils of Tokaihegyalja, on plots which had received 15 t/ha of lignite dust mixed with NPK ( $N_c$  0.4 t/ha,  $P_c$  0.6 t/ha,  $K_c$  0.2 t/ha), was 27% in comparison with plots which had received only mineral fertilizers. In the variant involving crushed vine (15 t/ha)

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HUNGARY / Cultivated Plants. Fruits, Berries,  
Nutbearing, Teas.

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Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6452

mixed with NPK, applied in Kecskemet, the increment was 10%. At the same time, the increment, obtained from a mixture of 60 t/ha of manure with NPK, was 2.5%. The action of 60 t/ha of manure and 120 t/ha of lignite mixed with 0.8 t N<sub>c</sub>, 0.6 t P<sub>c</sub> and 0.2 t K<sub>c</sub> were compared in Eger. The increment due to the lignite dust was 38% as compared with 24% for manure. No enrichment of the soil with dissolved humus was noticed during the first year at a depth of 20 cm. The amount of assimilable N increased in all examined kinds of soil.-- I. A. Popovich

Card 3/3

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6  
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6453

Author : Panina, V. V.

Inst : Not given

Title : Experimental Foliar Dressing of Grapes During Hardening and in the Planting Pit

Orig Pub : Vinodeliye i vinogradarstvo USSR, 1958, No 2,  
58

Abstract : Experiments, carried out at the kolkhoz' im. Karl Liebknecht (Odessa Oblast'), showed that spraying of grafts in stratified holes and in planting with 0.01% of B solution (boric acid) together with Bordeaux mixture strengthened the branching and ripening of the seedlings.

Card 1/1

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6  
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6454

Author : Tkachenko, G. V.; Korneev, N. T.

Inst : Not given

Title : The Effect of Lignite Waste on the Yield of  
Grapes

Orig Pub : Ukr. botanichniy zh., 1957, 14, No 4, 47-51

Abstract : Lignite waste placed together with manure  
in the form of compost (2 parts of manure and  
1 part of lignite waste, 5 kg for each shrub  
of grapes), as well as in pure form, or to-  
gether with a mineral fertilizer accelerated  
the beginning of the flow of sap by 2 - 3  
days. The opening of buds and blooming were  
also accelerated by 2 - 3 days, the fall of the

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USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6  
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6454

flowers and ovaries decreased and the yield  
increased by 7.3 - 24.7%. These experiments  
took place in the vineyard of the Uzhgorod  
wine sovkhoz in 1955. The highest yield was  
obtained, when lignite was applied in the  
form of compost. The mixture of mineral  
fertilizers (NPK) with the lignite waste  
(in ratio 1 : 1.5) produced an increment of  
yield of 14.4%, and the mixture of manure  
with lignite increased the yield by 24.7%. --  
E. T. Zhukovskaya

Card. 2/2

CZECHOSLOVAKIA / Cultivated Plants. Fruits, Berries, M-6  
Nutbearing, Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6455

Author : Mrva, Josef  
Inst : Sci.-Res. Institute of Vini- and Viticulture  
in Bratislava  
Title : Results of Experiments on Establishing the  
Nutritional Needs of Grapevines

Orig Pub : Sbor. Ceskosl. akad. zemed. ved. Rada-Rostl.  
vyroba, 1956, 29, No 4, 303-317

Abstract : The scientific-research institute of vini-  
and viticulture in Bratislava (Czechoslovakia)  
recommended analyzing both the soil and the  
grape plants, in order to establish the needs  
of vineyards for fertilization.

Card 1/1

HUNGARY / Cultivated Plants. Fruits, Berries, M-6  
Nutbearing, Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6456

Author : Bognar, Karoly  
Inst : Not given  
Title : The Pressing Problem of Fertilizing Vineyards

Orig Pub : Agrartudomany, 1957, 9, No 10, 24-27

Abstract : This is a brief review of references on the  
problem of fertilization of vineyards.

Card 1/1

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6  
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6457

Author : Gerasimov, B. A.  
Inst : Georgian Agricultural Institute  
Title : The Role of Some Micronutrients in the Phenomenon of Chlorosis of Grapevine

Orig Pub : Soobshch. AM GruzSSR, 1957, 18, No 6, 733-740

Abstract : The dynamics of the content of Fe, Mn and Cu in the ashes of leaves of chlorotic vines of Goruli mtsvane, Aligote and Pino shavi, grafted on rootstocks 3309 and healthy shrubs of Pino shavi, grafted on rootstock 5-b, b, were studied at the Georgian Agricultural Institute. A more intensive process of accumulation of mineral substances was found

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USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6  
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6457

in leaves of chlorotic vines, than in the healthy ones. Healthy leaves were richer in Fe and Mn, but poorer in Cu. The ratio of Mn to Fe was higher in ashes of healthy leaves, than in those of diseased ones. Virus type chlorosis, in which this ratio was disturbed, was found in the Goruli mtsvane variety. -- R. I. Serebryannyy

Card 2/2

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6  
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6458

Author : Zotov, V. V.

Inst : Not given

Title : Clonal Selection of Grapes

Orig Pub : Sadovodstvo, vinogradarstvo i vinodeliye  
Moldavii, 1957, No 4, 38-39

Abstract : Several authors (P. K. Soldatov, O. I. Matvereva and others) indicated that the high productivity of shrubs does not hold in their posterity, if the mother shrubs did not have different morphological features than poorly productive shrubs. This would negate the possibility of clonal selection by productivity features. However, experiments

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USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6  
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6458

(Orchard cultivation, vini- and viticulture of Moldavia, 1955, № 5) showed, that if the scions are taken from fruitful tall sprouts of highly productive maternal shrubs, the productivity feature holds in their posterity. -- A. M. Shevchenko

Card 2/2

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, Teas. M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6459

Author : Koshelnik, I.

Inst : Not given

Title : Local Black Fetyaska Variety

Orig Pub : Sadovodstvo, vinogradarstvo i vinodeliye Moldavii, 1958, No 2, 37-38

Abstract : The Black Fetyaska variety is widespread near Kishenev (Moldavian SSR) and in Rumania. The growth potential and productivity are high. The mildew resistance is the same as in the white Fetyaska variety. The root system is powerful. The shrubs with their own roots are capable of regeneration. The variety has good potential for wine production.

Card 1/1

RUMANIA / Cultivated Plants. Fruits, Berries, Nutbearing, Teas.

M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6461

Author : Stefanescu, Gh.; Banita, P.; Baltagi, B.

Inst : Not given

Title : Study of Dry Pruning of Rootstocks of Grapevines

Orig Pub : Comun. Acad. RRP, 1957, 7, No 8, 727-732

Abstract : It was established at the experimental stations of viniculture of Dragashan and Krachunel (Rumania) in 1951-1954 that the dry pruning of grapevine stocks (Berlandieri x Riparia Teleki 8B and Berlandieri x Riparia Cober 5BB, Riparia Gloar), when small branches of 2 cm with two and 4 buds are left, causes the vegetation of shrubs to

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RUMANIA / Cultivated Plants. Fruits, Berries,  
Nutbearing, Teas.

M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6461

begin 8 - 10 days earlier in comparison with the control (pruning without branches left). The more branches were left, the greater the average increment of sprouts was, up to the moment of the first cultivation. The growth and the size of sprouts in prunings where small branches were kept, especially if they were 2 cm long, were more uniform, than in variants where the branches were removed. The greatest yield of stock scions (with hillling of shrubs) was obtained by pruning and by keeping branches of 2 cm long (178,000), the smallest yield resulted from short pruning (without branches) - 171,500 scions from 1 ha. It is recommended to hill the shrubs for the winter

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RUMANIA / Cultivated Plants. Fruits, Berries,  
Nutbearing, Teas.

M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6461

time only; the layer of earth should be 10 - 15 cm. The pruning of stock vines while conserving branches of 2 cm in length is recommended. -- E. T. Zhukovskaya

Card 3/3

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6  
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6462

Author : Ten, P.; Sokolova, A.; Bazarnaya, L.  
Inst : Voronezh State Pedagogical Institute  
Title : Experiments on the Propagation of Grapes  
in the Voronezhskaya Oblast'

Orig Pub : Sb. stud. rabot Voronezhsk. gos. ped. in-t,  
1957, vyp 2, 15-19

Abstract : Experiments carried out at the institute  
showed that grapes in Voronezhskaya Oblast'  
can be successfully propagated with grape  
stalks, green scions, and cuttings.

Card 1/1

RUMANIA / Cultivated Plants. Fruits, Berries, M-6  
Nutbearing, Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6463

Author : Popescu, Gh.  
Inst : Not given  
Title : High Yields of Grapes Obtained at the  
Odobesti Experimental Station of Viniculture  
in 1956

Orig Pub : Gradina, via si livada, 1957, 6, No 2, 40-44

Abstract : In 1956 102 cwt/ha of grapes were produced  
on the average at the experimental station  
on an area of 72.8 ha. On an area of 2 ha  
186 cwt/ha were obtained (Italian Riesling  
and Mustasfege varieties). On an area of  
4 ha, 172 cwt/ha were obtained. On an area  
of 1.5 ha (Golden Odobesti variety), 148 cwt

Card 1/2

RUMANIA / Cultivated Plants. Fruits, Berries,  
Nutbearing, Teas.

M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6463

of grapes were obtained per ha. -- Ye. T.  
Zhukovskaya

Card 2/2

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, M-6  
Teas.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6465

Author : Beridze, G. I.

Inst : Not given

Title : Renewal of Wine Varieties of Abkhazia  
Grapes

Orig Pub : Sad i ogorod, 1957, No 12, 53-54

Abstract : This is a brief description of 9 local  
grape varieites.

Card 1/1

HUNGARY / Cultivated Plants. Fruits, Berries,  
Nutbearing, Teas.

M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6466

Author : Szegedi, Sandor

Inst : Not given

Title : Deep Planting of Grapes on Sandy Soils

Orig Pub : Kerteszet es szoleszet, 1958, 7, No 23, 6-8

Abstract : No abstract given

Card 1/1

CZECHOSLOVAKIA / Cultivated Plants. Fruits, Berries,  
Nutbearing, Teas.

M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6467

Author : Foltyň, Oskar

Inst : Not given

Title : Protection of Vineyards From Frosts in the  
Quiescent Stage of Vegetation

Orig Pub : Vinarstvi, 1957, 50, No 1, 4

Abstract : No abstract given

Card 1/1

USSR / Cultivated Plants. Fruits, Berries, Nutbearing, Teas. M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6469

Author : Mel'nik, S. A.

Inst : Not given

Title : The Achievements of Viniculture in the USSR

Orig Pub : Agrobiologiya, 1958, No 1, 109-116

Abstract : No abstract given

Card 1/1

USSR / Cultivated Plants. Medicinal. Essential Oil- Bearing. Toxins. M-7

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6472

Author : Laukaityte, G.

Inst : Kaunas Medical Institute

Title : Botanical Description of Elsholzia Cristata and Its Application in Popular Medicine

Orig Pub : Tr. Kaunassk. med. in-ta, 1957, 5, 215-224

Abstract : The morphological and anatomic structures of Elsholzia cristata (L.) of the Labiateae family were studied, and data on its utilization in Lithuanian popular medicine was assembled as a result. It is widespread in the Lithuanian SSR. A description of the stem, leaves, flowers, racemes, sepals, petals, stamens, pistils and fruits is given.

Card 1/2

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7  
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6472

The characteristic elements of all above-ground parts of the plant are hair, which have a thick warty cuticle and which consist of 1 - 10 cells, glandular hairs with a one celled cap on a one celled pedicel, and eight celled glands containing essential oil. It was formerly widely used in popular medicine for treating pneumonia, grippe and common colds. -- T. L. Braytseva

Card 2/2

GDR / Cultivated Plants. Medicinal. Essential Oil- M-7  
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6473

Author : Nadler, F.

Inst : Not given

Title : Mallow Cultivation in the Michurin Field

Orig Pub : Mitchurinbewegung, 1958, 7, No 3, 132-135

Abstract : The methods of cultivation of lilac-blue mallow on the Michurin field in Hermsdorf are described. This plant is utilized in medicine and is melliferous.

Card 1/1

CHINA / Cultivated Plants. Medicinal. Essential Oil- M-7  
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6474

Author : Tseng Yü-lin

Inst : Not given

Title : The Yünnan Geranium Napelense Sweet and the Preparation of Ointments Deriving From It

Orig Pub : Chung yao t'ung pao, 1957, 3, No 6, 235-236

Abstract : Geranium napelense is a perennial medicinal plant, which grows in the province of Yünnan. Morphological characteristics are given. The method of preparation of the ointment is given.

Card 1/1

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7  
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6478

Author : Yunusov, S. Yu.; Plekhanova, N. V.

Inst : Academy of Science, UzSSR

Title : Study of Alkaloids in Sophora Griffithii Stock

Orig Pub : Dokl. AN UzSSR, 1957, No 8, 17-19

Abstract : Alkaloids derived from the leaves and seeds of S. griffithii were isolated. The content of alkaloids in leaves (~4.65%) was approximately the same during the fruit bearing stage and after the fall of fruits; 1.6% of pachycarpine and 0.57% of cytisine were obtained by separating the alkaloids. 5.93% of the alkaloids were isolated from

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USSR / Cultivated Plants. Medicinal. Essential Oil- M-7  
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6478

seeds. 4.12% of cytisine were obtained by separating these alkaloids. The method of extraction of the alkaloids, their separation and identification are described. -- A. A. Zaytseva

Card 2/2

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7  
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6479

Author : Gusev, V.  
Inst : Vologda State Pedagogical Institute  
Title : Analysis of Couch Grass (*Agropyrum Repens*  
P.B.) and Its Content of Alkaloids

Orig Pub : Sb. stud. rabot. Vologodsk. gos ped. in-t,  
1957, vyp 3, 130-131

Abstract : Samples of couch grass collected on the plowed field near the village of Staroye, Cheboksarskiy Rayon, Vologodskaya Oblast' in August 154, were analyzed to establish their content in alkaloids. The methods of qualitative and quantitative analyses of the raw material are described. Examinations

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USSR / Cultivated Plants. Medicinal. Essential Oil- M-7  
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6479

Showed the presence of alkaloids in all parts of the plant, but not in the same amount. Spikelets contained the greatest amount of alkaloids (0.044%) in relation to the dry weight of the plant. -- T. L. Braytseva

Card 2/2

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7  
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6481

Author : Lyukshenkova, E. Ya.  
Inst : Moscow Pharmaceutical Institute  
Title : Pharmacognostical Study of Chelidonium  
Laciniatum Mill

Orig Pub : Mosk. farmatsevt. in-t, 1957, 1, 179-186

Abstract : Chelidonium laciniatum Mill. (I) is a mutant of Chelidonium majus L. (II). Examinations showed that there is no substantial difference in anatomical structure of organs in I and II. The content of the principal active substances (particularly of alkaloids and of vitamin C) is much less in I than in II. The content of alkaloids, of vitamin C and of carotin in

Card 1/2

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7  
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6481

both species depends on the age of the plant. The qualitative composition of alkaloids in the infusions of I and II was studied by observing their luminescence under UV - light and by using the method of distributive paper chromatography. It was shown that the content of chelidone in the above-surface and of sanguinarine in the root system in II is higher than in I. However, the content of berberine (chelidoxantine) is somewhat greater in I than in II. The content of chelidone in the part above the surface in I and II is much greater than in the root system. -- T. L. Braytseva

Card 2/2

POLAND / Cultivated Plants. Medicinal, Essential Oil- M-7  
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6483

Author : Kosch, Anna  
Inst : Not given  
Title : Artemisia Kurramensis Qazilbash-New Santonin  
Raw Material

Orig Pub : Dissert. pharmac. PAN, 1957, 9, No 4, 319-323

Abstract : No abstract given

Card 1/1

KOREA / Cultivated Plants. Medicinal. Essential Oil- M-7  
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6485

Author : Li Den Hua

Inst : Not given

Title : Medicinal Plants Existing in the Province of  
Northern P'enyang and Their Uses

Orig Pub : Choson Yakhak, 1957, No 1, 54-57

Abstract : No abstract given

Card 1/1

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7  
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6486

Author : Kotlyarova, M. V.

Inst : Sukhum Experimental Station of Essential  
Oil Crops

Title : Composition of Large Flowered Jasmine Oil  
Obtained by the Method of Dynamic Sorption

Orig Pub : Tr. Sukhumsk. zonal'n. opytn. st. efiro-  
maslichn. kul'tur, 1957, vyp 2, 115-130

Abstract : Large flowered jasmine (*Jasminum grandiflorum*  
L.), cultivated on the shores of the  
Mediterranean, was introduced in the USSR in  
1928. Its agricultural engineering was  
developed at the Sukhumi Experimental Station  
of Essential Oil Crops. Industrial plantations

Card 1/2

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7  
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6486

of large flowered jasmine were organized at the Khorshi Sovkhoz (Western Georgia). Oil from jasmine flowers is characterized by its wonderful aroma and by its fixing properties. A new method of treatment of jasmine flowers - the method of dynamic sorption - was developed at the technological laboratory of the Sukhumi Station. The main components, extracted and obtained by enfleurage (extraction of fats) of jasmine oils, are present in oils obtained by this method. -- A. G. Vyatkina

Card 2/2

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7  
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6488

Author : Tavberidze, I. A.; Simonyan, G. A.  
Inst : Sukhumi Zonal Experimental Station  
Title : Contribution to the Problem of Cultivation  
of Pink Geranium in the Ararat Valley

Orig Pub : Tr. Sukhumsk. zonal'n. opytn. st. efiromaslichn. kul'tur, 1957, vyp 2, 145-149

Abstract : The results of experiments on the cultivation of pink geranium (*Pelargonium roseum* Willd.) in Armenia at the Oktemberianskiy base of ZOS are given in this paper. The effect of the period and number of cuttings (mowings) on the yield of geranium was studied. The effect of the period of fall cuttings on

Card 1/2

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7  
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6488

hibernation, the development of the maximum sowing density, the effect of mineral fertilizers and the influence of preceding crops were also studied. It was established that by utilizing necessary cultivation practices, it is possible to obtain 25 - 30 tons of green mass and 26 - 32 kg of essential oil per ha. Growing of geranium styles by sowing plants in areas of 90 x 90 cm guarantees a yield of standard scions of up to 150 thousand per ha. This data as well as the data on geranium yields from model plots in some kolkhozes permits one to conclude that the cultivation and production of high yields of geranium is quite possible in the Ararat Valley. -- A. G. Vyatkina

Card 2/2

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7  
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6489

Author : Maslova, T. A.  
Inst : Sukhumi Zonal Experimental Station  
Title : Contribution to the Problem of Geranium Selection

Orig Pub : Tr. Sukhumsk. zonal'n. opytn. st. efiromaslichn. kul'tur, 1957, vyp 2, 19-34

Abstract : Pink geranium (*Pelargonium roseum* Willd.) is characterized by a low yield of essential oil (0.11 - 0.12% of green mass), poor implanting capacity and the spread form of its shrubs, which makes mechanized soil cultivation difficult in the period of vegetation. New hybrid geranium forms with high oil

Card 1/3

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7  
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6489

contents which have  $2\frac{1}{2}$  - 4 times more oil than pink geranium, and have a higher content of citronellol and geraniol, were developed at the Sukhumi Station of Essential Oil Crops, starting in 1937. The hybrids have good implanting properties (10% higher than pink geranium), high yields of green mass (25 t/ha), and the shrubs have a compact straight shape. This permits one to mechanize the cultivation of the plants and the harvestings of the crop. Part of the hybrids are being tested at the station at the present time; hybrids 220 k-15 and 229 k-40 are bred for subsequent delivery to industry; hybrid No 5 is being tried in the sovkhozes

Card 2/3

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7  
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6489

of Georgia; hybrid 220 k-24 is delivered to industry for implanting. The results obtained by the staff of the station while utilizing various methods of selection are described in detail; the main parental forms producing interesting progeny upon cross breeding (P. roseum, P. capitatum and P. radula) are described; the agrotechny to be used for the mother plants is given. -- A. G. Vyatkina

Card 3/3

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7  
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6490

Author : Volkovskaya, U. V.  
Inst : Sukhumi Zonal Experimental Station  
Title : Methods of Growing Patchouli Seedlings

Orig Pub : Tr. Sukhumsk. zonal'n. opytn. st. efiromaslichn. kul'tur, 1957, vyp 2, 45-65

Abstract : The essential oil, which is contained in leaves of patchouli (*Pogostemon patchouli* Pell Saut) - a tropical perennial plant of the mint family, is utilized by the perfume industry as a stable fixer. Long stemmed patchouli sets were received by the Sukhumi Zonal Experimental Station from the island of Java in 1932 and from that time on, the

Card 1/2

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7  
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6490

station has carried out experiments on the study of its agrotechnical engineering and methods of propagation. It was established that in the Soviet subtropics, patchouli must be cultivated as an annual crop. The problems of temperature conditions during the growth of the seedlings, the time for style cutting, the technique of planting scions, their fertilization, hardening, pinching and other data are discussed in detail. On the basis of data collected over a period of many years, it is recommended to cultivate patchouli seedlings in hothouses and in ground greenhouses with heating during the critical periods. -- A. G. Vyatkina

Card 2/2

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7  
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6491

Author : Pravdolyubova, A. A.  
Inst : Sukhumi Zonal Experimental Station  
Title : Production of Vetiver No 14 Clones Which  
Have a High Oil Content Among a Population  
of East Indian Vetiver

Orig Pub : Tr. Sukhumsk. Zonal'n. opytn. st. efiro-  
maslichn. kul'tur, 1957, vyp 2, 35-44

Abstract : Clone 14, characterized by high quality  
and excellent yield of oil (3.5 - 4 on the  
average and even 6%), was produced at the  
Sukhumi Zonal Experimental Station of Essential  
Oil Crops during the study of East Indian  
vetiver (*Vetiveria zizanioides* Stapf.).  
It was established that the content of oil

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USSR / Cultivated Plants. Medicinal. Essential Oil- M-7  
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6491

in the Soviet subtropics depends not only  
on the age of plants but on the growth and  
development of plants during the vegetation  
period, as well. According to preliminary  
data, vetiver clone 14 can give 1 - 1.5 t  
of absolutely dry roots with a yield of oil  
ranging from 35 to 50 kg/ha upon planting  
of 20 thousand two year old sets. Perfumes,  
prepared from the oil of vetiver clone 14  
were more rated highly at the Glavparfyumer  
than those prepared with imported vetiver  
oil. The station transmitted 23 thousand  
seedlings of vetiver clone 14 for implanting  
in production during 1955-1957. Testing  
of this clone is carried out at the present

Card 2/3

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7  
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6491

time in Georgia, Krasnodar Kray and in  
Middle Asia. -- A. G. Vyatkina

Card 3/3

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7  
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6492

Author : Volkhovskaya, U. V.; Azarevich, O. I.  
Inst : All-Union Sc.-Res. Inst. of Synthetic and  
Natural Aromatic Substances  
Title : Cultivation of Lemon Eucalyptus

Orig Pub : Tr. Vses. n.-i. in-t sintetich. i  
natural'nykh dushistykh veshchestv, 1957,  
vyp 3, 29-46

Abstract : The lemongum or lemon eucalyptus (*Eucalyptus citriodora* Hook.) is a tall evergreen, rapid growing tree. It grows normally in Australia, in New South Wales, on the northern shore of Queensland. Its essential oil contains citronellal - an initial product of

Card 1/3

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7  
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6492

hydroxycitronellal - which is one of the main components of perfumes and eau de Cologne. Essential oil is contained in the leaves and young twigs, wherefrom it is extracted by distillation with steam. The average yield of oil relative to the fresh verdure is 0.8%. The citronellal content in the oil is 90 - 95%. Annual cultivation of lemon eucalyptus in Western Georgia guarantees a yield of green mass of 6 - 11 t per ha with a yield of essential oil of 0.8%. In case of a favorable winter with a minimal temperature - 2.5 - 3°, the majority of plants of lemon eucalyptus hibernates well. During the second year, high trees will grow or, if the plants

Card 2/3

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7  
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6492

are cut in the spring, for stumps - there will be scrub. The agricultural engineering of lemongum developed in the course of several years at the Sukhumi Zonal Experimental Station, is described. -- L. N. Korolev

Card 3/3

BULGARIA / Cultivated Plants. Medicinal. Essential M-7  
Oil-Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6494

Author : Staykov, V.; Panayotov, Iv.; Borisov, G.  
Inst : Bulgarian Institute of Plant Cultivation  
Title : Study of the Fruits of Juniper and of the  
Essential Oil Obtained From Them

Orig Pub : Izv. In-ta rastenievodstva, Bolg. AN.,  
1958, kn. 5, 339-347

Abstract : The best results are obtained with water-steam distillation of the essential oil. Bulgarian essential oil does not differ from the best foreign essential oils in its physical and chemical constants. Waste products derived from the distillation of juniper fruits rich in sugar, protein and fats are

Card 1/2

BULGARIA / Cultivated Plants. Medicinal. Essential M-7  
Oil-Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6494

used to obtain alcohol. They are also used as animal food.

Card 2/2

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7  
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6496

Author : Vasina, A. N.

Inst : Institute of Agricultural Information  
Title : Potential of Pyrethrum Cultivation (Review)

Orig Pub : Sb. in-ta s.-kh. inform., 1958, No 1, 22-24

Abstract : Pyrethrum (*Pyrethrum cinerariaefolium*) introduced to Kenya at the beginning of the current century is well acclimatized there and produces a high yield per ha. The crop of dry racemes of pyrethrum attained 7400 t in 1945 and Kenya occupied one of the first places as a supplier of pyrethrum on the world market. However, in the post war years, in connection with the appearance of pre-

Card 1/3

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7  
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6496

parations of DDT, benzine hexachloride and many other highly effective synthetic insecticides the production of pyrethrum in Kenya was sharply curtailed and only at present it started to grow anew attaining 3400 t in 1955. Alletrine, a product of syntheses of an allyl homolog of cinerine I, which enters into composition of acting substances of pyrethrum, became for a large part a rival of pyrethrum. Beside Kenya, India also cultivates pyrethrum. Its need in dry racemes is calculated at 4 - 6 thousand tons. England is also a producer of pyrethrum. The Rothamsted Agricultural Experimental

Card 2/3

USSR / Cultivated Plants. Medicinal. Essential Oil- M-7  
Bearing. Toxins.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6496

Station is conducting studies on the biology  
of pyrethrum. -- A. G. Vyatkina

Card 3/3

USSR / Cultivated Plants. Decorative. M-8

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6501

Author : Nikitin, I. N.  
Inst : Leningrad Forest Academy  
Title : Intergrowth of Trees and Ornamental Ground  
Construction

Orig Pub : Tr. Leningr. lesotekhn. akad., 1957, vyp 82,  
ch. 1, 3-10

Abstract : The problem of natural intergrowth of trees  
(self grafting) and the expediency of its  
utilization in ornamental ground construction  
is discussed. In the distant past special  
compact (dense) tree plantings were effected  
in order to obtain intergrowths. The method  
was used to improve the quality of fruits,  
to increase the size of flowers and so on.

Card 1/3

USSR / Cultivated Plants. Decorative.

M-8

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6501

Examples of utilization of the method of intergrowth in garden-park construction in Germany are given. A description and characteristics of particulars of the growth and conditions of natural intergrowth of trees (Siberian firs, lindens, pines, white poplars, Himalayan cedars and others) in Leningrad and in other localities, according to the observations of the author in the course of 6 - 8 years are given. It was established by studies of the collective of the department that the trees of the first and second magnitude intergrown by their roots attain greater vigor, have an ampler fruit bearing capacity, produce better seeds, are more resistant to unfavorable conditions and

Card 2/3

USSR / Cultivated Plants. Decorative.

M-8

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6501

are longer living than solitary growing trees. Intergrown pines have more resin passages on one unit of their girth than the solitary growing ones. -- An. A. Zaytseva

Card 3/3

CZECHOSLOVAKIA / Cultivated Plants. Decorative.

M-8

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6517

Author : Pazout, F.

Inst : Not given

Title : Cactuses of the Ariocarpus Genus

Orig Pub : Ziva, 1958, 6, No 1, 18-21

Abstract : No abstract given

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